

On March 15, an 18 month old girl Leucadia died as the result of being struck by a vehicle as a pedestrian. On March 23, a 3 year old Valley Center boy died as the result of drowning in a pond. On March 28, an unborn El Cajon male died as the result of maternal injury sustained as a passenger in a motor vehicle crash. On March 29, a 7 month old National City girl died of asphyxiation as the result of being wedged between the bed and the wall. On April 9, a 1 year old Escondido girl died as the result of being struck by a vehicle as a pedestrian. On April 14, an 18 year old

## in San Diego County:

burned in an apartment fire On June 20, a 5 year old Vista boy died as the result of inhaling products of combustion and being burned in an apartment fire On June 20, an 18 year old Bonita male died as the driver in a motor vehicle collision On June 21, an 11 year old San Marcos boy, died as result of being struck by a motor vehicle as a pedestrian On June 25, an 18 year old Oceanside male died as the driver in a motor vehicle crash On June 27, a 2 month old girl died as the passenger in a motor vehicle crash On July 2, a 15 year old San Diego boy died as the result of

the result of being struck by a motor vehicle as a pedestrian On August 6, a 2 year old Chula Vista male died as the result of drowning in a swimming pool On August 6, a 2 year old Lakeside boy died as the result of a surgical procedure On August 10, a 15 year old girl from Fallbrook died as the passenger in a motor vehicle crash On August 13, a 19 year old Boulevard male died as the passenger in a motor vehicle crash On August 15, an 8 year old San Diego boy died as the result of being struck by a motor vehicle as a pedestrian On August 23, a 16 year old San Diego

September 12, a 13 year old girl died as the passenger in a motor vehicle crash On September 16, a 16 year old Valley Center female died as the driver in a motor vehicle collision On September 16, a 16 year old Valley Center female died as the passenger in a motor vehicle collision On September 17, an 18 year old male died as the result of being struck on the head by a falling rock On September 27, a 16 year old Valley Center male died as a passenger in a motor vehicle crash On October 5, a 19 year old San Diego male died as the driver in a motor vehicle crash On October 10, a 19 year old El Cajon male died as the driver in a motor vehicle crash On October 16, a 17 year old Escondido male died as the driver in a motor vehicle crash

Old Rancho Santa Fe male died as the driver in a motor vehicle crash. On November 19, a 19 year old Encinitas male died as the passenger in a motor vehicle crash. On November 27, a 3 month old San Diego girl died as the result of suffocation when a sibling rolled on top of her in bed. On November 28, a 19 year old Spring Valley male died as the passenger in a motor vehicle crash. On November 29, an 18 year old El Cajon male died as the result of a drug overdose. On November 29, a 17 year old San Diego male died as the result of being struck by a motor vehicle as a pedestrian. On December 6, an 18 year old San Diego female died as the result of falling from the back of a motor vehicle and striking her head.

December 19, a 1 year old Ramona boy died as the driver in a motor vehicle collision. On December 26, a 9 month old San Diego male died as the result of asphyxiation when he became wedged between a cot and a wall. On January 9, a 16 year old Chula Vista male died as the driver in a motor vehicle collision. On January 9, a 12 year old Escondido male died as a passenger in a motor vehicle collision. On January 9, a 17 year old Chula Vista male died as a passenger in a motor vehicle collision. On January 9, a 12 year old Escondido girl died as the result of aspirating on the contents of a container. On January 19, a 17 year old Escondido female died as the driver in a motor vehicle collision. On January 19, an 18 year old Escondido male died as the driver in a motor vehicle collision.

On February 3, a 16 year old child died while being restrained in a motor vehicle collision. On February 8, an 18 year old San Joaquin County resident died as the driver in a motor vehicle crash. On February 12, a 19 year old male died as the driver in a motor vehicle crash. On March 1, a 2 year old San Joaquin County resident died as the driver in a motor vehicle crash.

# A Report and Action Plan

**Children's**  
Hospital  
and Health  
Center

*San Diego*  
**SAFE  
KIDS**  
  
*Coalition*

# San Diego Safe Kids Coalition



3020 Children's Way  
MC 5073  
San Diego, CA 92123  
Phone: (858) 576-1600  
Fax: (858) 614-7563

July 14, 2000

Dear Friends:

The San Diego Safe Kids Coalition has developed the Childhood Unintentional Injuries in San Diego County: A Report and Action Plan to achieve a better understanding of childhood unintentional injuries and what actions can be taken to help reduce injury incidents. We hope that this document will prove useful to you regardless of your previous knowledge of unintentional injuries.

This document contains three types of child and adolescent injury data. The data provides important information on the major mechanisms of injury and should assist in the development of your prevention strategies. The report includes pre-hospital (paramedic) data, Trauma Registry data, and if applicable, Medical Examiner data.

Our surveillance data is limited, however as it only captures information on the most severely injured children. The child that falls from the jungle gym at school and is carried to the nurse's office and then seen by a pediatrician is not represented in our data. Neither is the child that is injured during a soccer game and taken directly to an emergency room by a parent. However, these types of injuries represent an important piece of the unintentional injury equation.

In the first Annual Report to the Community we stated, "Unintentional injury is a community problem that demands a community solution". The San Diego Safe Kids Coalition is working to raise awareness about unintentional injuries in children. Many things still need to be accomplished and your participation is vital to our success.

If you have any questions, please call us at 858-576-1600.

Sincerely,

Roxanne Hoffman, Coordinator  
San Diego Safe Kids Coalition

Cheri Fidler, Director  
Center for Healthier Communities



## **Acknowledgements**

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### **San Diego Safe Kids Coalition Data Committee Members**

Mike Casinelli

Tamara Moore

Kelly King

Beth Sise

Paul Maxwell

Leslie Upledger Ray

Officer Mark McCullough

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Patti Murrin, EMS Coordinator, Information Services

Leslie Upledger Ray, Senior Epidemiologist

Patti Akers, Biostatistician

Alan Smith, Epidemiologist

Clint Garrison, GIS Technician

**Trauma Research and Education Foundation for support and production of the CD-ROM version of this report.**

Sue Cox, President

Mike Casinelli, Executive Director

**Roxanne Hoffman**

**San Diego Safe Kids Coalition Coordinator**

# Dedication

This report is dedicated to the memory of those children lost to us through unintentional injuries.

## 1998

1. On January 2, a 4 year old San Diego boy died as the result of a bathtub drowning.
2. On January 7, an 8 year old San Marcos girl died as the result of a drowning in a bathtub.
3. On January 8, a 1 year old Oceanside boy died as the result of drowning in a canal.
4. On February 2, a 5 year old San Diego boy died as the result of being struck by a vehicle as a pedestrian.
5. On February 7, a 17 year old San Diego female died as the passenger in a motor vehicle collision.
6. On February 7, a 19 year old San Diego female died as the driver in a motor vehicle collision.
7. On February 7, a 19 year old male died as the result of exposure to the elements.
8. On February 14, a 19 year old female died as the passenger in a motor vehicle crash.
9. On February 20, a 17 year old El Cajon male died as the result of huffing inhalants.
10. On February 21, a 19 year old Escondido male died as the result of being struck by a vehicle as a pedestrian.
11. On February 26, an 18 year old South American male died as the result of exposure to the elements.
12. On February 26, a 6 year old San Diego male died as the result of being struck by a vehicle as a pedestrian.
13. On March 8, a 15 year old San Diego male died as the result of drowning in the ocean.
14. On March 11, an 8 year old San Diego boy died as the result of being struck by a vehicle as a pedestrian.
15. On March 15, an 18 month old girl Leucadia died as the result of being struck by a vehicle as a pedestrian.
16. On March 23, a 3 year old Valley Center boy died as the result of drowning in a pond.
17. On March 28, an unborn El Cajon male died as the result of maternal injury sustained as a passenger in a motor vehicle crash.
18. On March 29, a 7 month old National City girl died of asphyxiation as the result of being wedged between the bed and the wall.
19. On April 9, a 1 year old Escondido girl died as the result of being struck by a vehicle as a pedestrian.
20. On April 14, an 18 year old male died as the result of exposure to the elements.
21. On April 15, a 17 year old male died as the result of exposure to the elements.
22. On April 18, a 17 year old male died as the result of exposure to the elements.
23. On April 20, a 14 year old San Marcos girl died as the passenger in a motor vehicle crash.
24. On April 24, a 2 year old El Cajon boy died as the result of drowning in a swimming pool.

25. On April 25, a 15 year old girl died as the passenger in a motor vehicle crash.
26. On May 2, a 1 year old San Diego boy died as the result of asphyxiation when his neck became entwined with a necktie tied to a bunk bed.
27. On May 5, a 4 year old El Cajon boy died as the result of drowning in a swimming pool.
28. On May 19, a 17 year old El Cajon female died as the passenger in a motor vehicle crash.
29. On May 19, a 16 year old El Cajon female died as the passenger in a motor vehicle crash.
30. On May 19, a 19 year old San Diego male died as the result of a drug overdose.
31. On May 21, a 17 year old San Diego male died as the result of a drug overdose.
32. On May 25, an 18 year old female died as the passenger on a motorcycle involved in a crash.
33. On May 25, an 18 year old male died as the driver of a dirt bike that was out of control.
34. On May 31, a 10 year old male died as the result of colliding with a vehicle as a pedestrian.
35. On June 1, a 13 year old Chula Vista girl died as the result of drowning in the ocean.
36. On June 8, a 17 year old Tijuana male died as the result of drowning in the ocean.
37. On June 9, a 2 year old Lakeside boy died as the result of drowning in a bathtub.
38. On June 15, a 19 year old San Diego female died as the result of a drug overdose.
39. On June 19, a 3 year old Vista girl died as the result of inhaling products of combustion and being burned in an apartment fire.
40. On June 20, a 5 year old Vista boy died as the result of inhaling products of combustion and being burned in an apartment fire.
41. On June 20, an 18 year old Bonita male died as the driver in a motor vehicle collision.
42. On June 21, an 11 year old San Marcos boy, died as result of being struck by a motor vehicle as a pedestrian.
43. On June 25, an 18 year old Oceanside male died as the driver in a motor vehicle crash.
44. On June 27, a 2 month old girl died as the passenger in a motor vehicle crash.
45. On July 2, a 15 year old San Diego boy died as the result of being struck by a motor vehicle as a pedestrian.
46. On July 2, a 17 year old Cardiff male died as the passenger in a motor vehicle crash.
47. On July 20, a 3 year old Escondido girl died as the result of drowning in a swimming pool.
48. On August 1, an 18 year old Chula Vista female died as the driver in a motor vehicle crash.
49. On August 4, a 2 month old Spring Valley girl died of asphyxiation as the result of being wedged between the mattress and the wall.
50. On August 6, a 14 year old El Cajon boy died as the result of being struck by a motor vehicle as a pedestrian.
51. On August 6, a 2 year old Chula Vista male died as the result of drowning in a swimming pool.
52. On August 6, a 2 year old Lakeside boy died as the result of a surgical procedure.

53. On August 10, a 15 year old girl from Fallbrook died as the passenger in a motor vehicle crash.
54. On August 13, a 19 year old Boulevard male died as the passenger in a motor vehicle crash.
55. On August 15, an 8 year old San Diego boy died as the result of being struck by a motor vehicle as a pedestrian.
56. On August 23, a 16 year old San Diego male died as the result of being hit by a train.
57. On August 29, an 8 year old San Diego boy died as the result of being struck by a motor vehicle as a pedestrian.
58. On August 31, a 7 year old San Diego boy died as the result of being struck by a motor vehicle as a pedestrian.
59. On September 7, a 6 year old El Cajon boy died as the result of being struck by a motor vehicle as a pedestrian.
60. On September 8, a 1 year old Santee boy died as the result of drowning in a swimming pool.
61. On September 8, a 7 year old Los Angeles boy died as the result of drowning in a resort swimming pool.
62. On September 12, a 13 year old girl died as the passenger in a motor vehicle crash.
63. On September 16, a 16 year old Valley Center female died as the driver in a motor vehicle collision.
64. On September 16, a 16 year old Valley Center female died as the passenger in a motor vehicle collision.
65. On September 17, an 18 year old male died as the result of being struck on the head by a falling rock.
66. On September 27, a 16 year old Valley Center male died as a passenger in a motor vehicle crash.
67. On October 5, a 19 year old San Diego male died as the driver in a motor vehicle crash.
68. On October 6, a 19 year old El Cajon male died as the driver in a motor vehicle crash.
69. On October 10, a 17 year old Oceanside male died as the driver in a motor vehicle crash.
70. On October 17, a 19 year old Encinitas male died as the driver in a motor vehicle crash.
71. On October 26, a 16 year old female died as the passenger in a motor vehicle crash.
72. On November 3, a 19 year old male died as the result of injuries sustained when he fell from a cliff while hiking.
73. On November 15, a 19 year old Spring Valley male died as the passenger in a motor vehicle crash.
74. On November 19, a 16 year old Rancho Santa Fe male died as the driver in a motor vehicle crash.
75. On November 19, a 19 year old Encinitas male died as the passenger in a motor vehicle crash.
76. On November 27, a 3 month old San Diego girl died as the result of suffocation when a sibling rolled on top of her in bed.
77. On November 28, a 19 year old Spring Valley male died as the passenger in a motor vehicle crash.

78. On November 29, an 18 year old El Cajon male died as the result of a drug overdose.
79. On November 29, a 17 year old San Diego male died as the result of being struck by a motor vehicle as a pedestrian.
80. On December 6, an 18 year old San Diego female died as the result of falling from the hood of a motor vehicle and striking her head.
81. On December 11, a 9 year old Lakeside girl died as the result of being struck by a motor vehicle as a pedestrian.
82. On December 16, a 9 year old Lakeside girl died as the result of being struck by a motor vehicle as a pedestrian.
83. On December 19, an 18 year old Escondido male died as the driver of a dune buggy that collided with a tree.
84. On December 19, an 8 year old Ramona boy died as the passenger in a motor vehicle collision.
85. On December 19, a 1 year old Ramona boy died as the passenger in a motor vehicle collision.
86. On December 26, a 9 month old San Diego male died as the result of asphyxiation when he became wedged between a futon bed and a wall.

## 1999

1. On January 9, a 16 year old Chula Vista male died as the driver in a motor vehicle collision.
2. On January 9, a 17 year old Chula Vista male died as a passenger in a motor vehicle collision.
3. On January 9, a 17 year old Chula Vista male died as a passenger in a motor vehicle collision.
4. On January 9, a 12 year old Escondido girl died as the result of aspirating on the cap from a felt tip marker.
5. On January 15, a 17 year old Bonita female died as the driver in a motor vehicle collision.
6. On January 19, an 18 year old male died as the result of a drug overdose.
7. On January 20, a 16 year old El Cajon female died as the driver in a motor vehicle collision.
8. On January 22, a 12 year old San Diego girl died as the result of being struck by a motor vehicle as a pedestrian.
9. On February 2, a 3 year old San Diego boy died as the result of smoke inhalation in a home fire.
10. On February 3, a 9 year old San Diego boy died as the result of drowning in a bathtub.
11. On February 5, a 16 year old Chula Vista female died while being restrained.
12. On February 8, an 18 year old San Diego male died as a passenger in a motor vehicle collision.
13. On February 12, a 19 year old male died as the driver in a motor vehicle crash.
14. On March 1, a 2 year old San Diego boy died as the result of being struck by a motor vehicle as a pedestrian.

15. On March 2, a 19 year old Escondido male died as the result of being struck by a motor vehicle as a pedestrian.
16. On March 6, a 19 year old male died as the result of a drug overdose.
17. On March 6, a 2 year old San Diego girl died as the result of being crushed by an overturned dresser and television set.
18. On March 12, a 17 year old San Diego male died as the driver of a motorcycle.
19. On March 14, a 19 year old Escondido female died as a passenger in a motor vehicle collision.
20. On March 15, a 19 year old San Diego male died as the result of a fall from a skateboard.
21. On March 19, a 14 year old Lakeside male died as the driver of a motorcycle that collided with a dune buggy.
22. On March 21, a 19 year old Encinitas male died as the result of a fall from a skateboard.
23. On March 28, a 19 year old El Cajon male died as a passenger in a motor vehicle crash.
24. On April 2, a 16 year old male died as the result of exposure to the elements.
25. On April 4, a 13 year old Rancho Santa Fe girl died as a passenger in the crash of a private aircraft.
26. On April 4, an 11 year old Rancho Santa Fe boy died as the passenger in the crash of a private aircraft.
27. On April 4, a 17 year old Escondido male died as the driver in a motor vehicle collision.
28. On April 6, a 15 year old Carlsbad male died as a passenger in a motor vehicle crash.
29. On April 9, a 2 year old Escondido boy died as the result of drowning in a public pond.
30. On April 13, a 1 year old Pala girl died as the result of drowning in a septic tank.
31. On April 16, a 3 year old boy died as the result of being struck by a motor vehicle as a pedestrian.
32. On April 20, a 19 year old San Diego male died as the driver in a motor vehicle crash.
33. On April 29, a 16 year old Oceanside female died as a passenger in a motor vehicle crash.
34. On April 30, a 1 year old Oceanside girl died as the result of drowning in a water filled bucket.
35. On May 2, a 3 year old Camp Pendleton girl died as the result of smoke inhalation and being burned in a residential fire.
36. On May 4, an 18 year old San Diego male died as the result of drowning in the ocean.
37. On May 7, a 15 year old San Diego female died as the result of being unintentionally shot by another person.
38. On May 16, a 19 year old San Diego male died as the result of a drug overdose.
39. On May 21, a 2 day old Fallbrook boy died as the result of a surgical injury.
40. On May 23, a 13 year old San Diego male died as the result of being struck by a motor vehicle as a pedestrian.
41. On May 27, a 15 year old San Diego male did as the result of drowning in a public swimming pool.



42. On May 29, an 18 year old Chula Vista female died as the driver in a motor vehicle crash.
43. On May 30, a 19 year old female died as a passenger in a motor vehicle collision.
44. On June 6, an 18 year old El Cajon female died as the result of a drug overdose.
45. On June 8, an 18 year San Diego male died as the driver in a motor vehicle collision.
46. On June 8, a 19 year old El Cajon male died as the result of a drug overdose.
47. On June 10, an 18 year old San Ysidro female died as the driver in a motor vehicle crash.
48. On June 10, a 16 year old San Diego female died as the passenger in a motor vehicle crash.
49. On June 19, an 11 month old Brawley girl died as result of drowning in a bathtub.
50. On June 22, a 5 year old Escondido boy died as the result of drowning in a residential swimming pool.
51. On June 26, a 3 year old San Diego boy died as the result of being mauled by a dog.
52. On June 29, an 18 year old male died as the driver in a motor vehicle collision.
53. On July 1, a 17 year old Poway female died as the driver in a motor vehicle crash.
54. On July 1, a 17 year old San Diego female died as the passenger in a motor vehicle collision.
55. On July 4, an 8 year old Oceanside girl died as the result of being struck by a motor vehicle as a pedestrian.
56. On July 5, a 19 year old male died as the result of drowning in the ocean.
57. On July 11, a 19 year old male died as the passenger in a motor vehicle crash.
58. On July 29, a 16 year old San Diego male died as the driver in a motor vehicle crash.
59. On July 29, a 1 year old La Mesa boy died as the result of being struck by a motor vehicle as a pedestrian.
60. On August 1, an 18 year old Spring Valley male died as the driver in a motor vehicle crash.
61. On August 8, a 17 year old San Diego female died as a passenger in a motor vehicle crash.
62. On August 8, a 19 year old male died as a passenger in a motor vehicle crash.
63. On August 8, a 16 year old San Diego male died as the result of being struck by a motorcycle as a pedestrian.
64. On August 11, a 17 year old male died as a passenger in a motor vehicle crash.
65. On August 12, a 16 year old Poway female died as a passenger in a motor vehicle crash.
66. On August 12, a 15 year old Poway female died as a passenger in a motor vehicle crash.
67. On August 15, a 17 year old San Diego male died as the driver in a motor vehicle crash.
68. On August 19, a 15 year old San Diego male as the result of a fall from a skateboard.
69. On August 28, a 19 year old San Diego male died as the driver in a motor vehicle crash.
70. On August 30, a 17 year old Bonsall male died as the driver in a motor vehicle crash.
71. On August 31, an 18 year old San Diego male died as the driver in a motor vehicle crash.

72. On September 2, a 3 year old San Diego boy died as the result of being struck by a motor vehicle as a pedestrian.
73. On September 2, a 9 day old Escondido boy as the result of an injury during childbirth.
74. On September 3, an 11 year old Santee male died as the result of smoke inhalation from a recreational vehicle fire.
75. On September 3, an 11 year old Santee male died as the result of smoke inhalation from a recreational vehicle fire.
76. On September 15, a 3 year old San Diego boy died as the result of being overmedicated for a dental procedure.
77. On September 19, a 2 year old Bonita boy died as the result of drowning in a residential swimming pool.
78. On October 3, a 19 year old Camp Pendleton male died as the result of being struck by a motor vehicle as a pedestrian.
79. On October 15, an 18 year old Lakeside male died as the result of being struck by a motor vehicle as a pedestrian.
80. On October 22, a 19 year old male died when he drowned in the ocean as the result of jumping from a pier.
81. On October 22, a 13 year old Chula Vista boy died as the result of being struck by a motor vehicle as a pedestrian.
82. On October 31, an 18 year old National City male died as the result of being struck by a motor vehicle as a pedestrian.
83. On November 1, a 1 year old Escondido boy died as a passenger in a motor vehicle collision.
84. On November 8, a 17 year old Ramona female died as the driver in a motor vehicle crash.
85. On November 9, a 17 year old El Cajon male, died as the result of being struck by a motor vehicle while he was riding his bicycle.
86. On November 18, a 19 year old female died as a passenger in a motor vehicle collision.
87. On November 24, a 13 year old female died as the result of being struck by a motor vehicle as a pedestrian.
88. On December 23, a 13 year old Calexico female died as the result of being struck by a motor vehicle as a pedestrian.
89. On December 26, a 5 year old El Centro boy died as the result of burns from fireworks.
90. On December 28, a 16 year old Valley Center male died as the driver of a motorcycle off road.

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## Introduction

*The vision of the San Diego Safe Kids Coalition is that San Diego Will Be A Community Where Children Will Be Free from Injuries.* The Safe Kids Coalition is a community collaborative dedicated solely to the prevention of childhood and adolescent unintentional injuries and deaths. After all, injuries are the leading childhood public health threat for children. The San Diego Safe Kids Coalition is part of the National Safe Kids Campaign, emanating from Children's National Medical Center in Washington, D.C. under the leadership of Dr. Martin Eichelberger and Dr. C. Everett Koop. San Diego's Safe Kids Coalition began in 1987 under the auspices of the San Diego Safety Council. In 1991 Children's Hospital and Health Center became the lead organization.

The Coalition has organized the *Childhood Unintentional Injuries in San Diego County: A Report and Action Plan* to update San Diego County on the current state of unintentional injuries that face children and adolescents. In collaboration with the San Diego County Division of Emergency Medical Services, the Coalition has organized a comprehensive collection of the best childhood injury data currently available in San Diego. In this report you will find information on the following unintentional injury mechanisms for children and adolescents under the age of 20.

- Transportation related injuries including motor vehicle occupant, pedestrian and pedalcycle related injuries.
- Household injuries including burns/scalds, suffocation/airway obstruction, falls, poisonings, and unintentional firearm injuries.
- Sports and Recreation Injuries
- Drowning

This report does not include information on injuries that are caused by intentional mechanisms such as homicide, suicide and assault. However, when an adolescent dies as a result of an overdose or poisoning, the possibility of intentional overdose can be difficult to assess.

In addition to the injury data that is being provided, this report includes:

- Abstracts of local injury research
- Updates on San Diego Safe Kids Coalition Activities

- **Prevention Activities You Can Do**

The San Diego Safe Kids Coalition encourages you to review this report to learn more about the major childhood public health threat in San Diego County – childhood unintentional injury. The Coalition also encourages you to use this report to determine how you can support prevention activities in your home and community. By focusing on injuries that effect the greatest number of victims or pose the greatest risk to a specific group of children balanced with those injuries that have the greatest medical and societal impacts, limited resources can be dedicated to appropriate prevention efforts. In addition, the data can be utilized to determine the effectiveness of these prevention efforts.

## **San Diego Safe Kids Coalition Activities**

The focus of the San Diego Safe Kids Coalition over the years has been trifold:

- Public awareness/media campaigns
- Program development and implementations of prevention strategies
- Advocating for public policy and regulations that decrease the risk of childhood injuries

San Diego Safe Kids takes its role of child advocacy seriously. These activities have taken the San Diego Safe Kids Coalition through work ranging from drowning prevention to gun locks and most recently advocating for legislation that would require belt positioning booster seats for children.

In 1995, a steering committee was convened to redefine the role of the San Diego Safe Kids Coalition. That committee defined the Safe Kids Coalition role as:

- To facilitate a broad-based community coalition that promotes, educates and advocates for the prevention of unintentional injuries while supporting and reinforcing programs of injury prevention partners.
- To identify and mobilize community resources.
- To gather and assess data related to unintentional injuries in San Diego County.
- To set priorities for actions and resource allocation.
- To develop and/or implement and/or evaluate interventions.
- To establish the San Diego Safe Kids Coalition as a highly visible community resource and disseminate information.

The San Diego Safe Kids Coalition encourages you to closely review this report and determine how you and your agency or organization can utilize this information to improve your injury prevention efforts. The San Diego Safe Kids Coalition also encourages you to research prevention initiatives and determine what efforts have been determined to be best practices based on a collection and analysis of appropriate data. More information on injury prevention best practices will be available on the San Diego Safe Kids Coalition's website: [www.SanDiegoSafeKids.com](http://www.SanDiegoSafeKids.com)

Currently the membership of the Coalition has grown to over 60 agencies and individuals working together to turn our vision into a reality. We invite you to become involved!

## **Childhood Injury as a Public Health Threat**

*"If a disease were killing our children in the proportion accidents are, people would be outraged and demand this killer be stopped."*

C. Everett Koop, MD  
Former U.S. Surgeon General

Injury is the leading cause of death for every age group between 1 and 44 years old in the United States. Injury is a public health threat. This threat was first described in 1967 by the National Academy of Sciences. Only modest progress has been made since then toward eliminating this leading cause of death and disability among our children.

There is wide agreement among public health officials that injuries are predictable and thus preventable occurrences. Prevention means correcting the condition that could lead to an injury before that injury occurs through behavioral change, environmental change, engineering and product design changes or legislative mandate. In many cases, prevention requires not only an environmental or engineering change but also behavioral change to adopt the change. For example, seat belts were incorporated into most automobiles by 1970, however it was not until the mid 1980's that seat belt use began to increase. This increased use was due to a combination of education and legislation that led to behavioral change.

The public health approach to injury is to treat it like any other threat to the health of the population through surveillance, risk factor identification, intervention and evaluation. In other words determine the scope of the problem, the cause, what works, and how to do it.

### **The Cost of Injury**

According to injury economist Dr. Ted Miller, injuries to children in 1996 exceeded \$80 billion nationally. The majority of these costs, \$66 billion, were due to loss of productive life. Over \$14 billion were for direct medical costs.

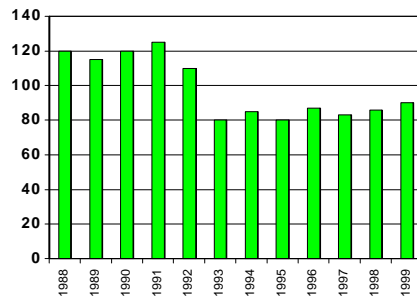
In California the total estimated cost for those injuries that resulted in death exceeded eight billion dollars annually. This represents only a portion of the total cost of injury. According to the Centers for Disease Control and Prevention (CDC) for every death due to injury among children, there are an estimated 45 hospitalizations, 1,200 visits to emergency rooms and nearly 1,600 visits to physicians' offices.

In San Diego County, the direct medical cost of injuries for children and adolescents under age 20 is estimated at \$125 million per year. This is equivalent to almost \$350,000 per day. Mortality and trauma statistics portray only a portion of the problem. Non-fatal injuries comprise a significant part of the burden on the health care system and are responsible for substantial, long-term morbidity and family suffering.

## The Impact of Childhood Injury in San Diego County

The number of unintentional injury deaths of children under age 20 has decreased over the last twelve years to a current level of 90 deaths in 1999.

San Diego County Unintentional Injury  
Deaths of Children Under Age 20



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services. California Department of Health Services,  
Death Records.



These deaths represent the majority of deaths to children over the age of one. In 1998, as in most previous years, the leading cause of death among children aged 1-19 was unintentional injury.

<b>Leading Causes of Death by Age Group in San Diego County, 1998</b>						
<b>Rank</b>	<b>&lt;1</b>	<b>1-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>Total</b>
<b>1</b>	Perinatal Conditions 112	Unintentional Injuries 13	Unintentional Injuries 12	Malignant Neoplasms 8	Unintentional Injuries 43	Perinatal Conditions 112
<b>2</b>	Congenital Anomalies 56	Congenital Anomalies 5	Malignant Neoplasms 5	Unintentional Injuries 6	Homicide and Legal Intervention 19	Unintentional Injuries 79
<b>3</b>	Unintentional Injuries 5	Homicide and Legal Intervention 4		Congenital Anomalies 4	Suicide 16	Congenital Anomalies 67
<b>4</b>	Cerebrovascular Diseases 3	Malignant Neoplasms 3		Suicide 2	Malignant Neoplasms 9	Malignant Neoplasms 25
<b>5</b>	Anemias 2	Chronic Obstructive Pulmonary Disease 2		Chronic Obstructive Pulmonary Disease 2		Homicide and Legal Intervention 25
<b>6</b>		Diseases of the Heart 2		Diseases of the Heart 2		Suicide 18
<b>All Other Causes</b>	<b>46</b>	<b>13</b>	<b>11</b>	<b>5</b>	<b>8</b>	<b>92</b>
<b>Total Number of Deaths</b>	<b>224</b>	<b>42</b>	<b>28</b>	<b>29</b>	<b>95</b>	<b>418</b>
<i>Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, California Department of Health Services, Death Records. Based on County of Residence.</i>						

The leading causes of unintentional injury deaths varied by age. Among those children under age 5, the leading cause of death was drowning, followed by suffocation. Among children five and over, the leading cause of unintentional injury death was motor vehicle crashes.

<b>Leading Causes of Injury Deaths by Age Group in San Diego County, 1998</b>					
<b>Rank</b>	<b>&lt;5</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>Total</b>
<b>1</b>	Unintentional Drowning 8	Unintentional MV Traffic 10	Unintentional MV Traffic 4	Unintentional MV Traffic 35	Unintentional MV Traffic 52
<b>2</b>	Unintentional Suffocation 5	Unintentional Drowning 1	Suicide Suffocation 2	Homicide Firearm 12	Homicide Firearm 12
<b>3</b>	Homicide Unspecified 4	Unintentional Fire/Burn 1	Homicide Cut/Pierce 1	Suicide Firearm 9	Unintentional Drowning 11
<b>4</b>	Unintentional MV Traffic 3	Homicide Other 1	Unintentional Drowning 1	Suicide Suffocation 6	Suicide Firearm 9
<b>5</b>			Unintentional Pedestrian 1	Unintentional Poisoning 5	Suicide Suffocation 6
<b>6</b>				Homicide Cut/Pierce 3	Unintentional Poisoning 5
<b>7</b>					Unintentional Suffocation 5
<b>All Other Causes</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>23</b>
<b>Total Number of Injury Deaths</b>	<b>23</b>	<b>13</b>	<b>9</b>	<b>78</b>	<b>123</b>
<i>Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, California Department of Health Services, Death Records. Based on County of Residence.</i>					

While death is perhaps the most tragic consequence of injury, through advances in emergency medical response and trauma care and through interventions such as safety restraints, more children than ever have survived injury. The pattern of nonfatal injury differs from that of fatal injury.

<b>Leading Causes of Prehospital Unintentional Injury by Age Group in San Diego County, Fiscal Year 97/98</b>					
<b>Rank</b>	<b>&lt;5</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>Total</b>
<b>1</b>	Unintentional Falls 731	MVO Crash 446	MVO Crash 478	MVO Crash 1,930	MVO Crash 3,199
<b>2</b>	MVO Crash 345	Unintentional Falls 380	Unintentional Falls 409	OD Poisoning 412	Unintentional Falls 1,833
<b>3</b>	Suffocation/Airway Obstruction 198	Pedestrian 147	Pedalcycle 239	Unintentional Falls 313	OD Poisoning 727
<b>4</b>	OD Poisoning 168	Pedalcycle 140	Other Transportation 137	Other Transportation 179	Pedalcycle 534
<b>5</b>	Burn/Scald 115	Unintentional Cut/Pierce 46	OD Poisoning 112	Pedalcycle 126	Pedestrian 412
<b>All Other Causes</b>	<b>272</b>	<b>190</b>	<b>252</b>	<b>252</b>	<b>1,312</b>
<b>Total Number of Prehospital Patients</b>	<b>1,829</b>	<b>1,349</b>	<b>1,627</b>	<b>3,212</b>	<b>8,017</b>
<i>Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Prehospital Patient Records.</i>					

To fully assess the impact of injury on our children, it is essential to understand the patterns of nonfatal injuries as well.

### **Data Driven and Outcomes-based Injury Prevention**

In *The Future of Children*, The David and Lucile Packard Foundation identified the absence of reliable data as a deficiency that has stymied past injury prevention efforts and continues to be a problem today.

San Diego County is fortunate to have a number of nonfatal injury data sources available. However, data on emergency room visits is not collected as part of a comprehensive injury surveillance system. This data is critical to fully understand the true magnitude of unintentional injury and to develop the most appropriate interventions. The San Diego Safe Kids Coalition identified the need for this data as a goal in 1997 and is currently supporting efforts by emergency departments throughout San Diego County to develop this type of data reporting system.

Many factors influence childhood and adolescent injuries. These factors include behaviors, enforcement efforts, and environmental factors. In order to develop and implement effective prevention efforts, a comprehensive understanding of the pre-event, event, and post-event injury factors is necessary. This report provides data that can be used to improve the understanding of injury-related factors.

Purpose of the report is to provide a snapshot of unintentional injury in San Diego County so that targeted prevention efforts can be designed and implemented. The concept for this document was developed by a committee of the Safe Kids Coalition to provide quick and uniform information on local injuries, Safe Kids Coalition activities and What You Can Do to prevent injuries.

The chapters of this report are organized according to Safe Kids Coalition Task Forces. Each Task Force focuses on information and prevention strategies for specific injury types. In each section you will find prehospital data collected by paramedics and EMT-1s who respond to emergency calls for medical assistance. Additionally, some sections include information on trauma injuries and deaths from the San Diego County Trauma Registry.

## **Overview of the Data Sources and Definitions**

*Childhood Unintentional Injuries in San Diego County: A Report and Action Plan* includes three types of injury data: Paramedic/EMT-1 pre-hospital data, San Diego County Trauma Registry data, and San Diego County Medical Examiner data. Each type of data provides

unique information about childhood injuries. A very important source of data is how many children and adolescents are seen in emergency departments for injuries. To date, this data is not available.

### San Diego County Prehospital Database

San Diego County Emergency Medical Services receives a prehospital patient record (PPR) for every patient seen by a paramedic or EMT-1. When a call is placed to 911 requesting medical aid, a PPR is created. Every time a paramedic or EMT-1 treats a patient in San Diego County, information about the call is documented. This information is either directly entered into a real time data system called the QA Network or is provided in paper format. This information is invaluable for injury prevention because the paramedic/EMT-1 is the only medical provider who actually sees the location of the injury event and is able to document important patient and environmental facts.

The PPR contains information including:

- Mechanism of injury
- Age, gender, and ethnicity of the patient
- Geographic location of the injury event
- Time and day of injury event
- Information on use of safety devices including seat belts, child safety seats and bicycle helmets

### San Diego County Trauma Registry

San Diego County Medical Services receives a Trauma Registry for every trauma patient admitted to any of the designated trauma center hospitals who meets one of more of the following criteria (MTOS Modified Major Trauma Outcome Study): the patient's length of hospitalization was at least 3 days, the patient was admitted to the intensive or intermediate care unit, the patient expired due to traumatic injuries or the patient was transferred to or from another acute hospital

When an injured patient meets one or more of these criteria, information about the patient's condition is entered into the San Diego County Trauma Registry. The data in the trauma registry includes:

- Mechanism of injury
- Age, gender, and ethnicity of the trauma patient
- Day and time of the injury event
- Severity of injury

### San Diego County Medical Examiner's Records

San Diego County Medical Services receives an Investigative Summary and Autopsy for every individual who dies in San Diego County from a traumatic injury. Medical Examiner's Records contain the following injury related information:

- Age, gender, and ethnicity of the victim.
- Location where death occurred
- Mechanism of injury for injury deaths

### San Diego Association of Governments (SANDAG) Demographic Characteristics

SANDAG produces detailed demographic and population estimates and forecasts for the county and for major statistical areas and subregional areas within the county. All rate calculations are based upon these estimates.

## Definitions

**Geographic areas:** The geographic areas used in the analysis of the data are the major statistical areas and subregional areas of San Diego County as defined by the San Diego Association of Governments (SANDAG).

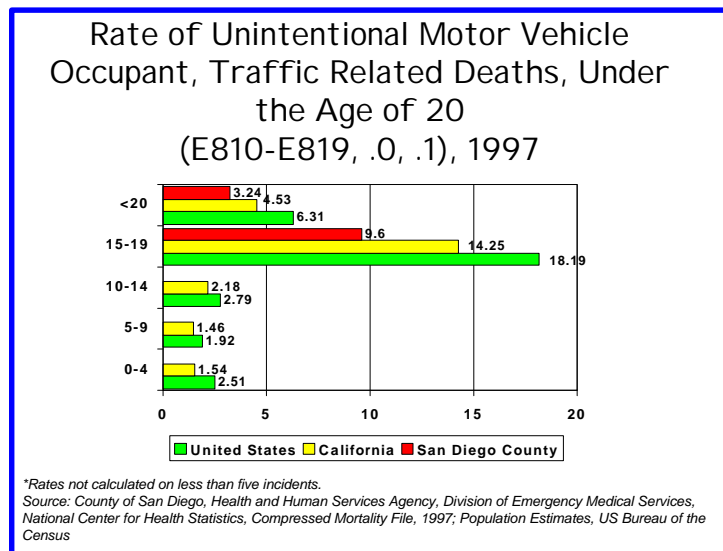
**Incidence:** The number of occurrences for the specific injury type. Incidence should not be used to compare different racial/ethnic groups, age groups or geographic areas. For these comparisons, use rates which take into account differences in population sizes.

**Race/Ethnicity:** Race/ethnicity is calculated for this report as Hispanic, non-Hispanic White, non-Hispanic Black, non-Hispanic Asian/Other based on SANDAG estimates of population for January 1998.

**Rate:** Calculated as incidence per 100,000 population. Rates were calculated using January 1998 population estimates provided by the San Diego Association of Governments (SANDAG). Rates were not calculated for categories with less than five occurrences, due to instability.

$$\text{Rate} = \text{Incidence} * 100,000 / \text{Population}.$$

## Motor Vehicle Occupant Crashes



Motor vehicle occupant crashes are those involving occupants of vehicles such as cars or trucks. This category does not include pedalcyclists or pedestrians hit by motor vehicles. Those injury types are covered separately.

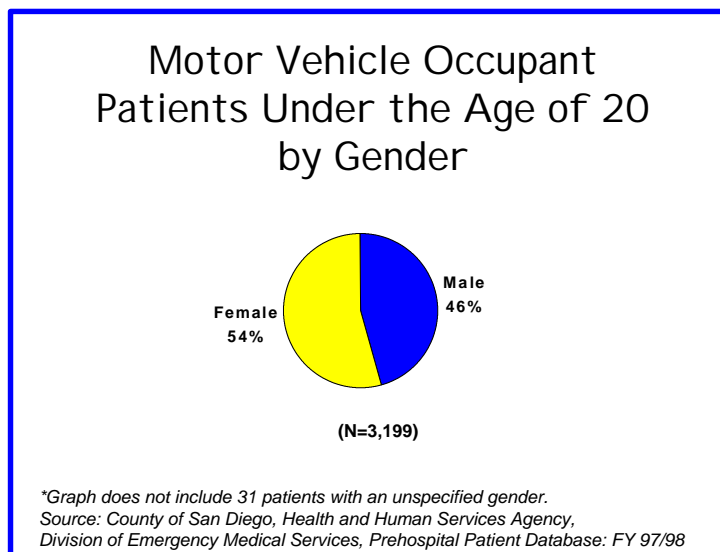
Without question, motor vehicle occupant crashes are the leading cause of unintentional injury death among teenagers. Among 15-19 year olds, the rate of motor vehicle occupant death in San Diego County is half that of the United States and significantly lower than that of California. The very low numbers of deaths in San Diego County for the younger age groups mean it is not possible to calculate valid rates. Nationally, males have a significantly higher rate of death than females although that does not hold true for San Diego County.

Motor vehicle occupant death rates have continued to fall in the face of more vehicles and more drivers on the roadways. This is due in large part to more safety conscious occupants, advances in vehicle design and emergency medical response systems and trauma systems that enable patients to get appropriate medical care quickly, thus saving many thousands of lives every year.



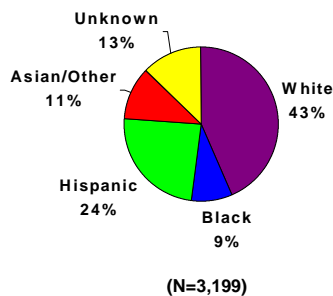
In the following pages information will be presented based on level of severity, starting with those injuries which required a Paramedic/EMT-1 response, to severe injuries which met the modified Major Trauma Outcomes Study (MMTOS) criteria for inclusion in the San Diego County Trauma Registry to fatal injuries in order to show the impact of motor vehicle occupant crashes on the child population of San Diego County.

### Paramedic/EMT-1 Patients



The majority of patients injured in motor vehicle occupant crashes were female (54%). This was very different from other causes of injury, which were overwhelmingly male.

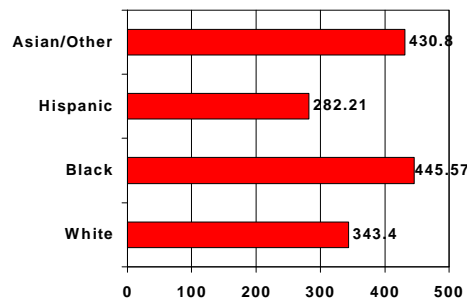
### Motor Vehicle Occupant Patients Under the Age of 20 by Race/Ethnicity



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

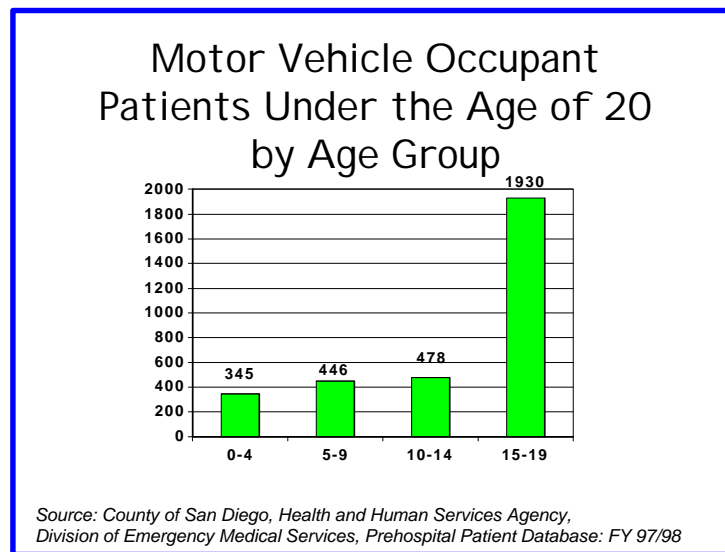
Whites comprised the largest group of injured children with 43%. Twenty-four percent of patients were Hispanic, 9% Black, and 11% Asian/Other. Race/ethnicity was not known for 13% of patients.

### Rate of Motor Vehicle Occupant Patients Under the Age of 20 by Race/Ethnicity

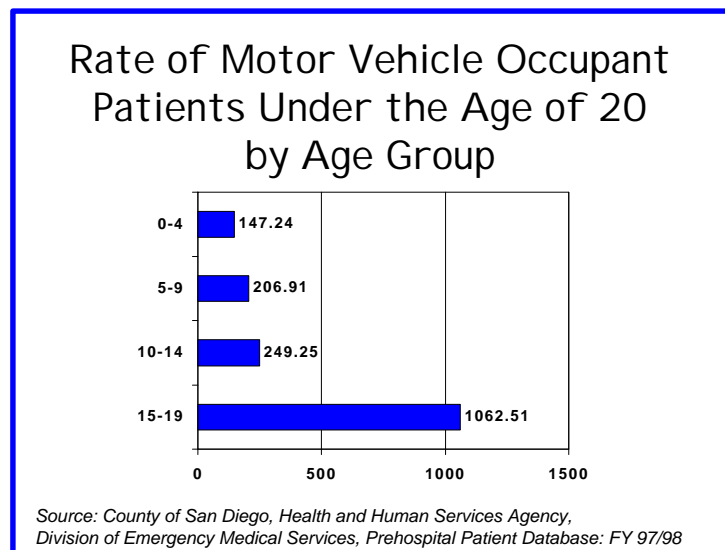


Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

Blacks and Asian/Others had the highest risk of injury in motor vehicle crashes (446 and 431 per 100,000 respectively). Black children were 30% more likely than White children and 58% more likely than Hispanic children to be injured in a motor vehicle occupant crash that required emergency response by Paramedics or EMT-1's.



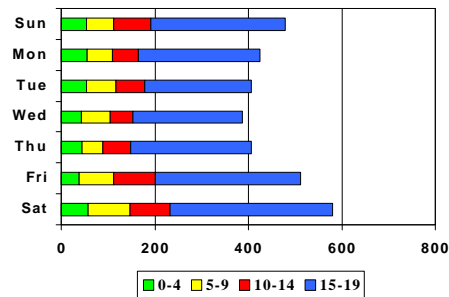
Looking at injuries by 5-year age groups, more injuries occurred among 15-19 year olds than among 0-4, 5-9, and 10-14 year olds combined. The major reason for this is that people start to drive when they are 15-19 years of age.



Drivers in this age group are at high risk because of their lack of experience, and the 15 to 19 year-old passengers are at risk because they are more likely to ride in cars that are being driven by young, inexperienced drivers. The rates of injury by age group reflect the far greater numbers of injuries among 15-19 year olds, whose risk is more than four times higher than children younger than 15.

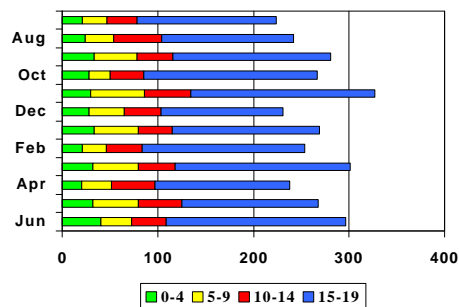
Friday and Saturday had the most injuries both overall and for each age group. The number of injuries reached its lowest point on Wednesdays.

### Motor Vehicle Occupant Patients by Age Group and Day of Week Injured



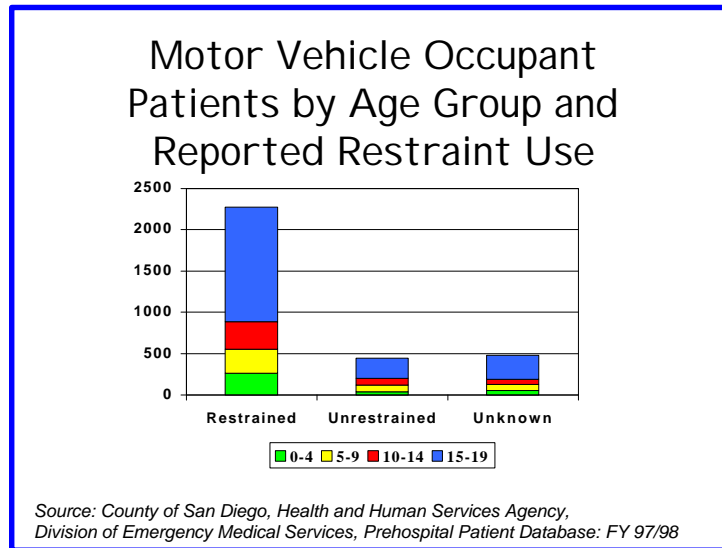
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

### Motor Vehicle Occupant Patients by Age Group and Month of Injury



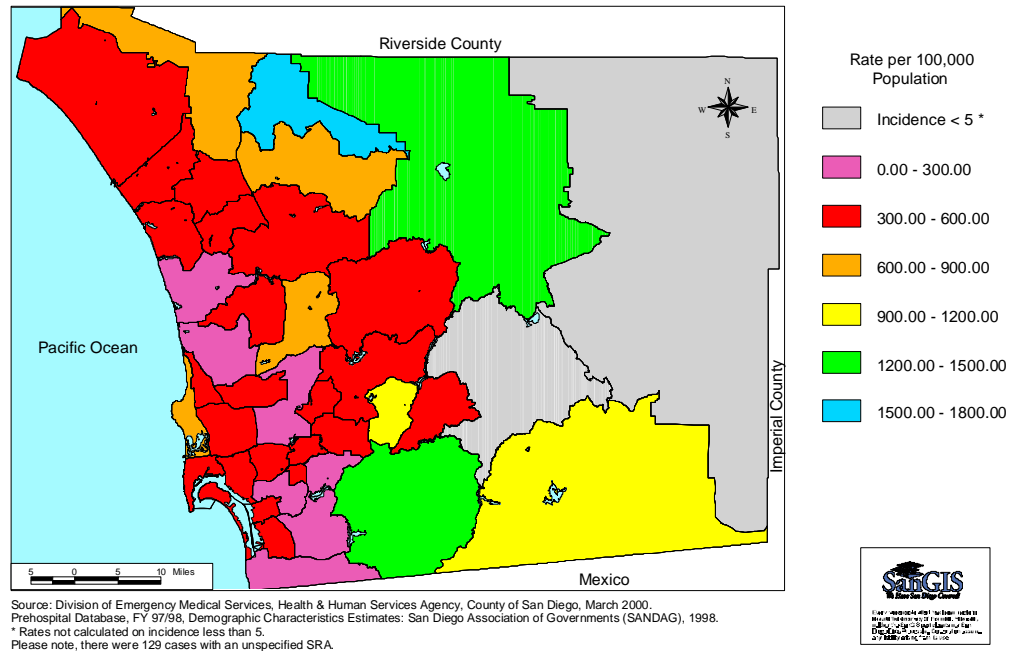
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

The Fall months showed the greatest number of injuries, with November experiencing the highest burden. The younger children did not show a distinct seasonal pattern, although the 15-19 year olds seemed to cycle through an increasing number of injuries every three to four months, with large jumps from May to June and August to September.



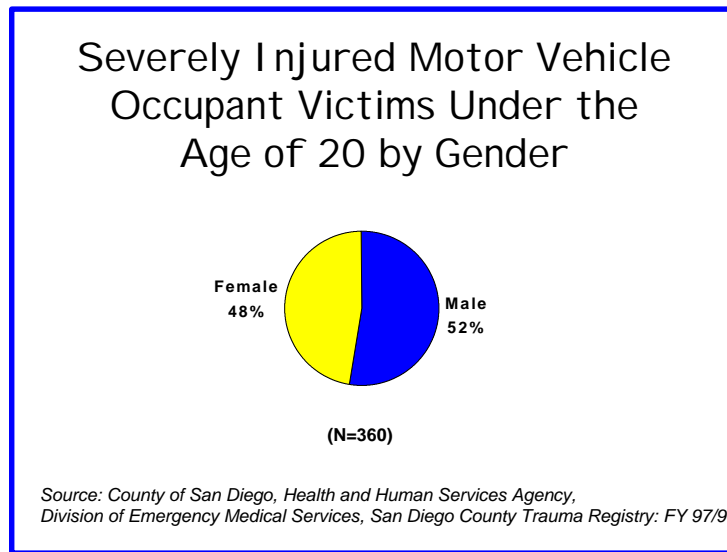
The paramedics who respond to injury crashes also report whether safety restraints were used. About 15% of the time, it was not known whether the patient was restrained in the car or not. **A distressingly high percentage were reported to be unrestrained when the crash occurred. Ten percent of children under five, 18% of 5-9 year olds, 17% of 10-14 year olds, and 13% of 15-19 year olds were not wearing restraints at the time of the crash.**

Paramedic/EMT Motor Vehicle Occupant Crash Patients  
Under the Age of 20 by Sub-Regional Area

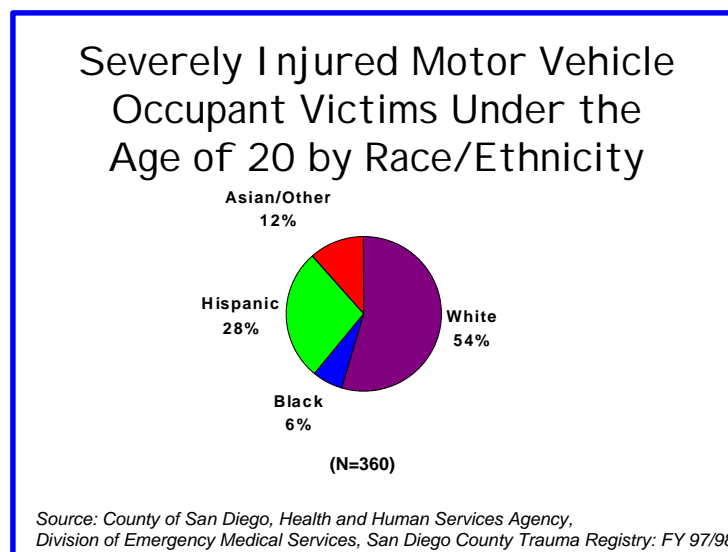


Geographically, the highest injury rates were seen in some of the more rural areas of the county (Pauma, Palomar-Julian, and Jamul). In the more inhabited regions, particularly high rates have been seen in Poway (662/100,000) and the Coastal Subregional area, which encompasses the popular areas of Pacific Beach and Mission Beach/Mission Bay (613/100,000).

## Trauma Registry Patients



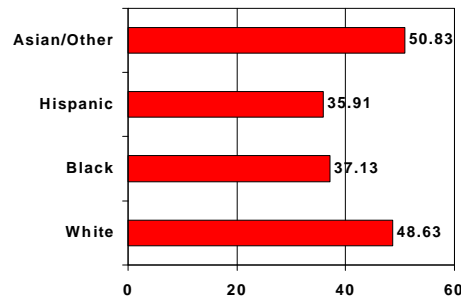
Seriously injured patients were those who met the criteria for inclusion in the County of San Diego trauma registry and survived their injuries. According to this definition, there were 360 motor vehicle occupant crash victims under the age of 20 who were severely injured. Unlike the total number of motor vehicle occupant injuries, in which the majority was female, males comprised most of the severely injured MVO victims (52%).



Whites made up the majority of severely injured patients (54%), followed by Hispanics (28%), Asian/Other (12%) and Black patients (6%). Patients in the Asian/Other and White

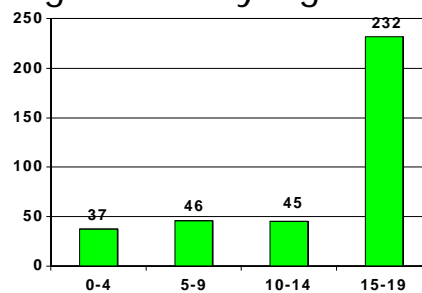
racial/ethnic categories were at the highest risk of being severely injured in a crash (51 and 49 per 100,000 respectively), while the risk for Hispanics (36/100,000) and Blacks (37/100,000) was quite a bit lower.

### Rate of Severely Injured Motor Vehicle Occupant Victims Under the Age of 20 by Race/Ethnicity



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

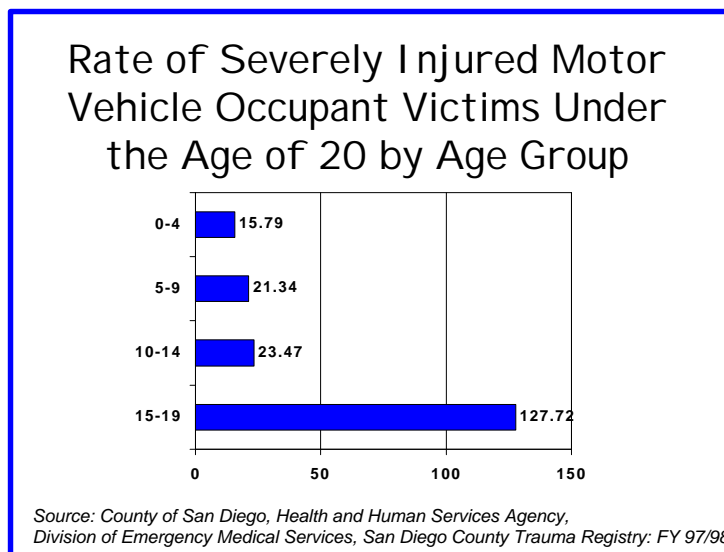
### Severely Injured Motor Vehicle Occupant Victims Under the Age of 20 by Age Group



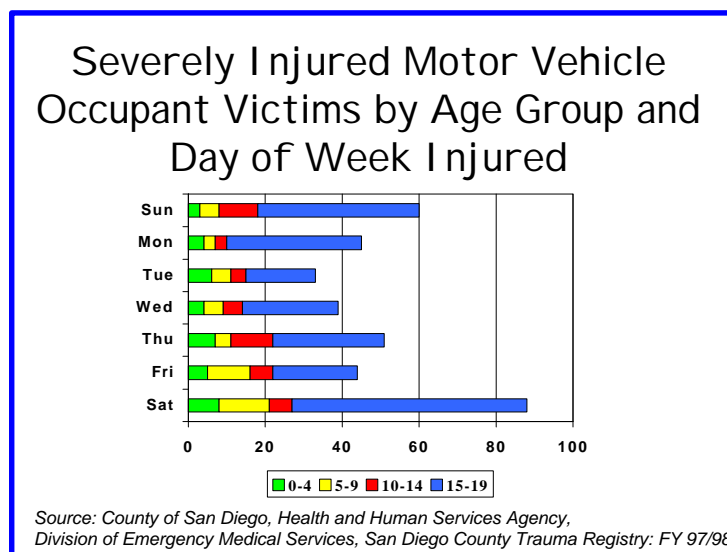
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98



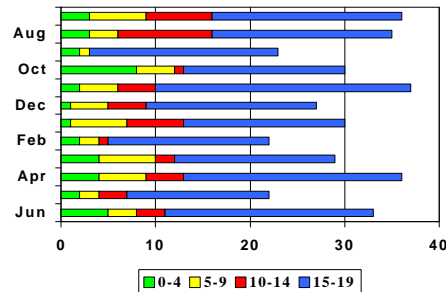
Injuries to 15-19 year olds far outpaced those in the younger age groups, both in terms of number and rate of severe injuries. Again, the distinction is most likely due to the fact that people in the older age group are inexperienced drivers or passengers in cars being driven by inexperienced drivers.



By day of week, most of the severe injuries occur on the weekends, with the greatest number by far occurring on Saturdays. The months with the highest numbers of severe injuries were November, April, and July. There was no discernible seasonal variation to the number of severe injuries



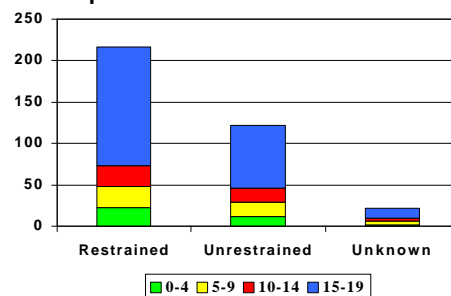
### Severely Injured Motor Vehicle Occupant Victims by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

The percentage of severely injured patients who were not wearing safety restraints is worthy of special notice. Whereas about 14% of all motor vehicle patients under 20 were unrestrained, 34% of the severely injured patients were without restraint. The injuries to many of these patients would have been far less severe had they simply worn their seatbelts.

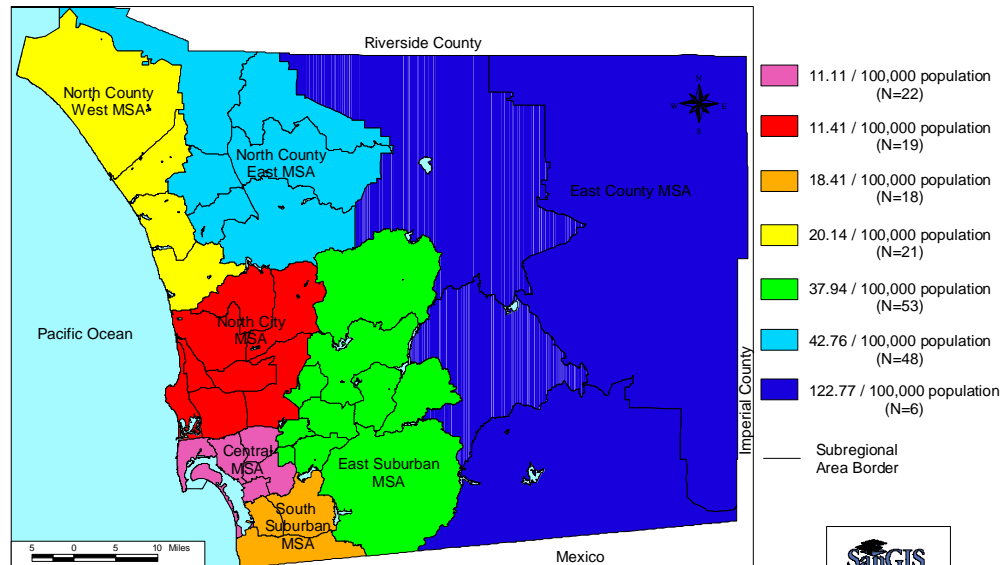
### Severely Injured Motor Vehicle Occupant Victims by Age Group and Reported Restraint Use



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

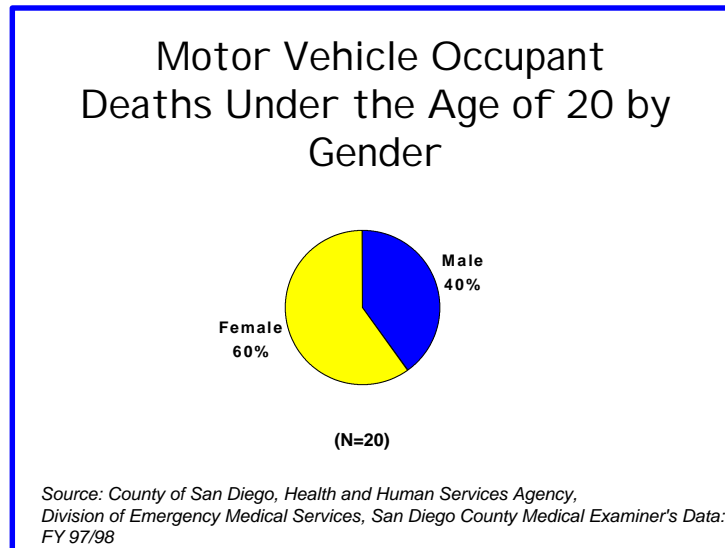
The population-based risk of severe injury was highest in the most rural areas of the county, and lowest in the most densely populated urban areas.

Severe Injury Due to Motor Vehicle Occupant Crash  
Under the Age of 20 by Major Statistical Area

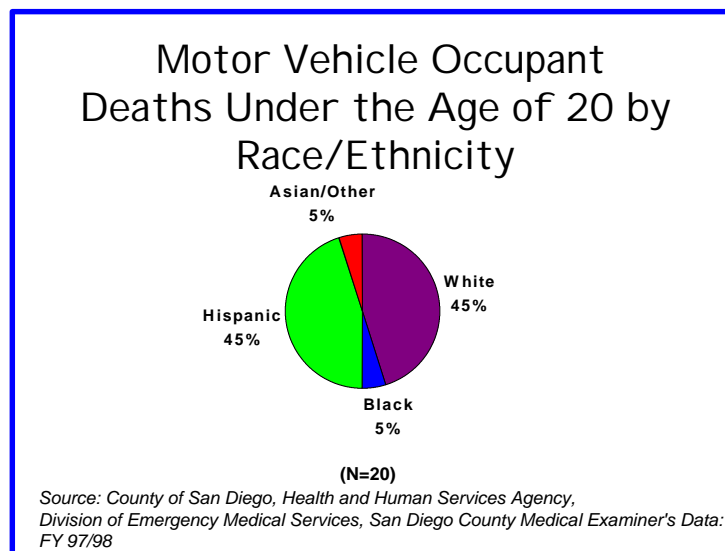


## Deaths

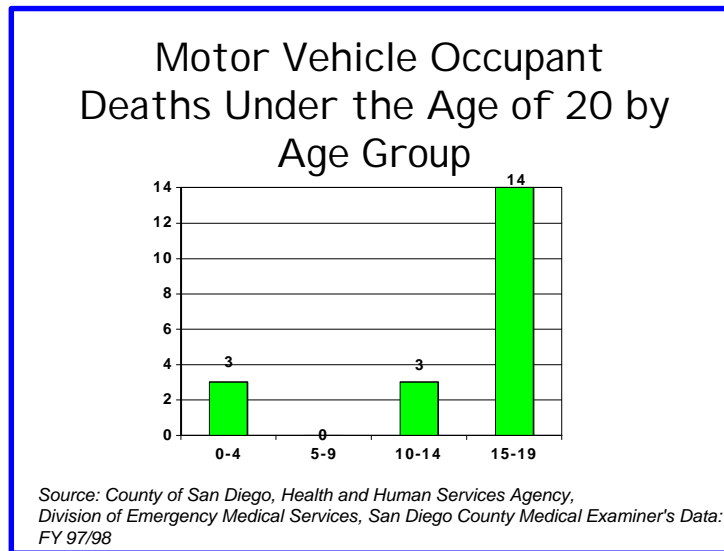
During the year from July 1997 through June 1998, 20 children under the age of 20 died from injuries sustained in motor vehicle occupant crashes. Twelve of these (60%) were female, and eight (40%) were male.



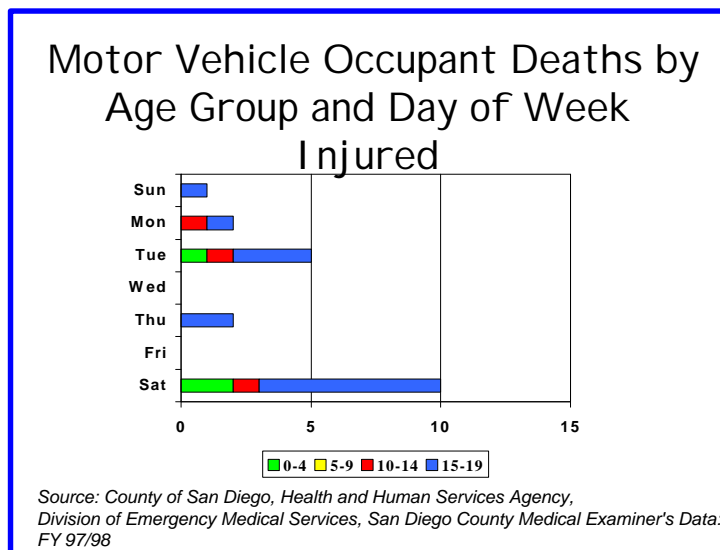
An equal number of White and Hispanic patients (9 each) died. Asian/Others and Blacks each had one death.

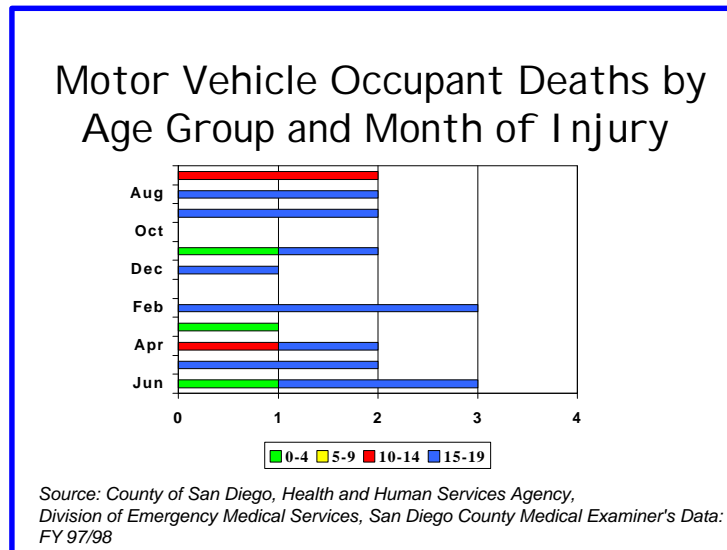


Three victims in the 0-4 year age group, three aged 10-14, and 14 between the ages of 15 and 19 were among the deaths.

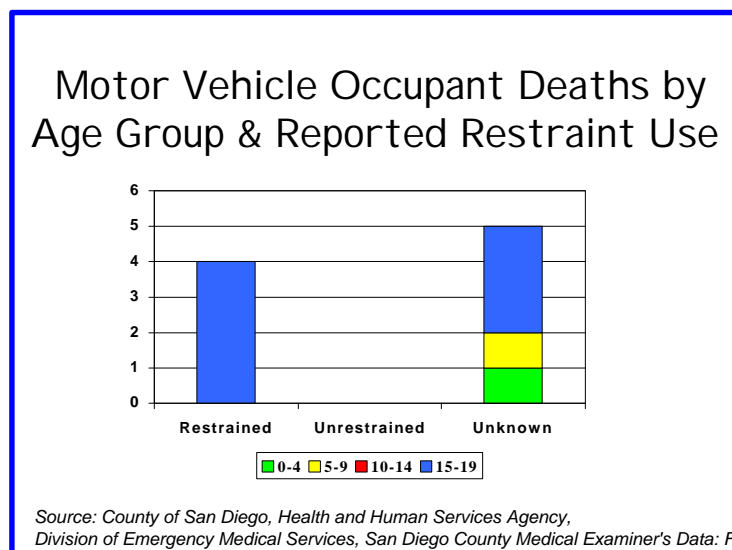


By day of week, half of the deaths occurred on a Saturday, and 25% (five) were in crashes that happened on a Tuesday. This emphasizes the higher crash rate during the weekend.





Restraint use was known for only four of the decedents under 20 years of age, who were all reported as having worn their restraints. When the paramedics are striving to save the life of a critical patient, they may be less likely to note whether restraints were used. On the other hand, the high percentage of unrestrained victims in the previously mentioned “severe injury” category is evidence that not wearing seatbelts makes a severe outcome such as death much more probable. (see insert)



## Local EMS Research

**Background:** This study examined the relationships between age, restraint use, injury severity and crash type for children under age 15 years involved in motor vehicle related crashes during FY1995/96 in San Diego County. Of the 3,822 children involved in injury crashes as defined by the California Highway Patrol, paramedics responded to 1,248 injured children. One hundred twenty two (9.8%) were included in the Trauma Registry. Of these, 10 died.

**Results:** Of the children under age 15 seen by paramedics, 36.5% (n=456) were ages 10-14, 35.7% (n=445) were ages 5-9 and 27.8% (n=347) were under age 5. The 10-14 year age group experienced the highest rate of non-restraint use (18.9%). Of children ages 5-9, 39.3% wore a lap/shoulder belt and 18.7% wore a lap belt only. Seventeen percent (17.3%) were unrestrained. Forty percent (40.1%) of children under age 5 were restrained in child seats; 17.9% were unrestrained. For all age groups, head trauma was the most frequent chief complaint. In the 0-4 year age group, 70.1% (n=44) of children who were unrestrained experienced head trauma compared to only 42.8% (n=21) in lap/shoulder restraints and 49% (n=68) of children restrained in child seats. Three children in this age group had an airbag only; 2 suffered head trauma. Three children who had an airbag with a lap/shoulder restraint suffered head trauma. In the 5-9 year age group, 57% (n=44) of children who were unrestrained experienced head trauma compared to 60.2% (n=50) with lapbelts only and 52% (n=91) of children with lap/shoulder restraints. Three children in this age group had an airbag only; 2 suffered torso trauma and one suffered trauma to extremities. Three children had an airbag with a lap/shoulder restraint; 2 suffered head trauma and 1 suffered torso trauma. In the 10-14 year age group, 51% (n=44) of children who were unrestrained experienced head trauma compared to 57.8% (n=37) with lapbelts only and 41% (n=82) with lap/shoulder restraints. Thirteen children had an airbag only; 69.2% (n=9) suffered head trauma. Eight children had an airbag with a lap/shoulder restraint; 75% (n=6) experienced head trauma. For all age groups under 15 years, 25% of the emergency run codes were due to unrestrained occupants. In contrast, 40.4% of non-emergent codes and 35.8% of the urgent run codes were due to occupants with lap/shoulder restraints. Nine children had airbags only and none were considered emergency run codes from the scene. Eleven children had airbags with lap/shoulder restraints; 2 were considered emergency run codes.

**Conclusions:** Children who were restrained by child seats or lap/shoulder restraints were significantly less likely to experience severe injuries in motor vehicle collisions ( $p=0.036$ ). Older children restrained in lapbelts only, suffered a higher percentage of head trauma than those unrestrained or restrained by a lap/shoulder combination ( $p=0.043$ ).

## **San Diego Safe Kids Coalition Prevention Activities**

As previously mentioned in the data analysis, occupant protection systems have come a long way in significantly reducing injury and death in motor vehicle crashes. The Safe Kids Coalition has been working on the child passenger safety seat issue with the National Safe Kids Campaign sponsor General Motors and the GM Buckle Up Program. Research had indicated that over 80% of all child safety seats were not correctly installed, placing children at increased risk and providing their parents with a false sense of security. The Safe Kids Coalition has conducted numerous child safety seat checkups with both the San Diego Safe Communities 2000 and the County of San Diego Safe Communities Program. A grant from the County Safe Communities provided funding to conduct a child safety seat education/installation program throughout the County of San Diego in affiliation with the local Toys R Us locations in the county. This program reached over 1,000 Toys R Us customers throughout the County. Data from these checkups indicate that an even greater percentage of incorrect installations are occurring in San Diego County. (see insert)



## Local EMS Research

**Background:** The National Highway Traffic Safety Administration (NHTSA) has estimated that 80 to 90% of children are incorrectly restrained in motor vehicles. Possibilities for errors in car seat installation and adjustment include connection of seat to safety belt in vehicle, snugness of harness straps, and placement of the retainer clip, among other factors. Another issue in child safety restraint is that the type of restraint used is occasionally not appropriate for the child's age, size, or developmental stage. The wide selection of infant/child safety restraints and the numerous vehicle designs have compounded this issue to the point that trying to find an infant/child restraint seat that is compatible with the vehicle seat is a source of frustration for many car seat inspectors and parents alike. Local efforts by Buckle Up San Diego and the San Diego Safe Kids Coalition have aimed to remedy this situation by inspecting child restraints and educating parents on their proper installation and use.

**Methods:** Buckle Up San Diego and the San Diego Safe Kids Coalition conducted 15 infant/child restraint inspection events at various locations in San Diego during 1999. These events consisted of an intensive inspection of each child restraint for proper installation and adjustment. A standard form was used to record any errors encountered, and recommendations were made to the parents regarding proper restraint adjustment and, if necessary, the appropriate type of restraint. This paper reports preliminary analysis of data from these inspections.

**Results:** A total of 477 seat positions were checked during these events, with at least one error recorded on 95.4% of all car seats inspected. New seats were recommended on 28 inspections (5.9%).

**Conclusion:** Even though it can be argued that parents with concerns about the fit of their seat would be more likely to participate in a car seat checkup, the finding that fewer than 5% of car seats checked had no misuse validates NHTSA's estimates. Of great concern is that for every type of car seat more than 60% were not held tightly in the seat of the vehicle. The risk here is if the seat is not snugly installed it could be ejected or become dislodged resulting in serious injury to the child.

With the success of the child safety seat inspection program, the demand for certified child passenger safety technicians has skyrocketed. The Safe Kids Coalition has provided three 4-day NHTSA certification trainings and has 3 more planned before the end of 2000. The Safe Kids Coalition also received POST certification, which enabled law enforcement officers to be trained. To date over 20 San Diego Police Officers have been trained as child passenger safety technicians.

Current California State Law requires children to be in a child safety seat until they are 4 years of age and 40 pounds. Five to nine-year-olds are at greater risk of injuries because they cannot be properly restrained with an adult size lap/shoulder belt. Traditional belt systems are not designed for children smaller than 4 foot 9 inches and 80 pounds. In order to be properly restrained they need to use a belt positioning booster seat. The Safe Kids Coalition has been actively supporting SB 567 that would require children to use a belt positioning booster seat until the age of 7 and 70 pounds. This bill is awaiting the Governor's signature after passing both chambers of the legislature. When signed, California will become the 2<sup>nd</sup> state in the nation to provide protection for this vulnerable population.

## **Prevention Activities You Can Do**

- ♥ Make sure you wear your lap/shoulder belt each and every time you ride in a motor vehicle. Children look to adults to set the example.
- ♥ All occupants should sit as far back from the air bag as possible: for drivers a minimum of 12 inches, for passengers a minimum of 24 inches, as recommended by the National Highway Traffic Safety Administration.
- ♥ Make sure that all children riding in your vehicle are properly restrained for their age and weight. Make sure this is the case when they ride with others.
- ♥ Make sure that child safety seats are properly installed. If in doubt, have your seats checked at a Safe Kids Safety Seat Check-Up Event.
- ♥ Have all children under the age of 12 ride in the back seat of the vehicle whenever possible. Crash data shows that the front passenger seat is the most dangerous seating position.
- ♥ Pregnant moms should be correctly restrained with a lap/shoulder belt throughout their pregnancy. Information on correct positioning of

lap/shoulder belts during pregnancy can be obtained from the Safe Kids Coalition. (see insert)

### **Local EMS Research**

**Research Objective:** Motor vehicle crash injuries pose special problems for both maternal and fetal health. Pregnancy loss can occur following even relatively minor crashes without maternal injury. Unrestrained and improperly restrained pregnant women incur more complications than restrained women during crashes. Prenatal healthcare providers do not normally discuss the proper use of seat belts during pregnancy. The purpose of this study was to examine the relationship between restraint use and injury in pregnant and nonpregnant women involved in motor vehicle crashes.

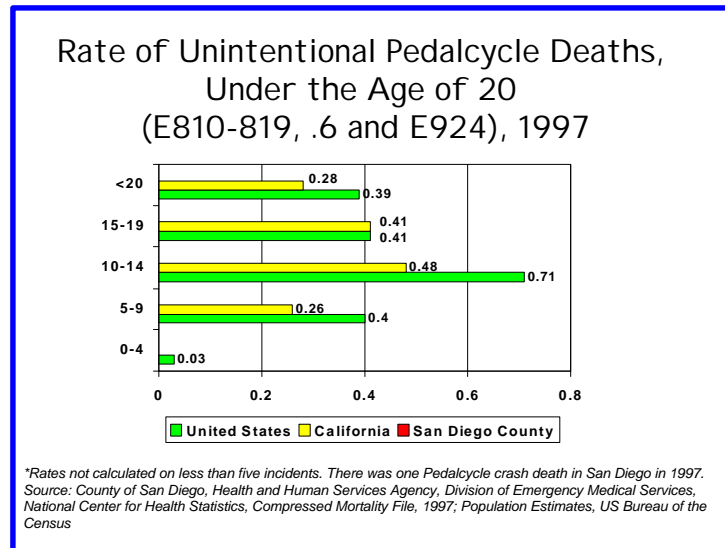
**Principal Findings:** Pregnant trauma victims were noted to have used active restraints (seat belts) 84% of the time (n=120). A comparable group of pregnant women (n=60) with non trauma (MTOS) injuries involved in motor vehicle crashes used active restraints 82% of the time. Nonpregnant women of childbearing years used restraints 70% of the time. Abdominal pain was noted in 68% of pregnant trauma patients and only 3% of nonpregnant women. Most injuries were minor and muscular skeletal in nature, however 7 (29%) showed significant abdominal injuries. Maternal (p=0.005) or fetal (p=0.001) deaths were significantly more likely to occur in women not using restraints. The number of pregnant women involved in crashes in which an airbag was deployed was too small to analyze at this time (n=13).

**Conclusions:** Pregnant women in motor vehicle crashes used active restraints at a higher rate than the general population of childbearing age women. The majority complained of abdominal pain with only a few actually sustaining significant abdominal injury. The opportunity exists to provide education on proper and safe use of restraints for this population through health care providers and through driver's manuals.

**Implications for Policy, Delivery, or Practice:** Opportunities exist to provide education on the proper use and placement of motor vehicle restraints during pregnancy through health care providers, community outreach programs, childbirth classes, and retail stores.

## Pedalcycle Crashes

Pedalcycles include bicycles, tricycles, quad cars and other pedal powered forms of transportation. Children riding pedalcycles are especially vulnerable to injury because they often ride together with motor vehicle traffic, yet are as difficult to see and as unprotected as pedestrians.



There was only one pedalcycle related death in San Diego County in 1997. However, in San Diego County, pedalcycle crashes are the third leading cause of severe injury among 10-14 year olds. This age group consistently has the highest rates of pedalcycle death and injury among children due in large part to their greater use of bicycles as transportation.

California has a lower rate of pedalcycle related deaths among children than the United States. This may be attributed to the early passage and enforcement of the mandatory helmet law for all children under age 18. There are numerous efforts to pass similar legislation in other states.

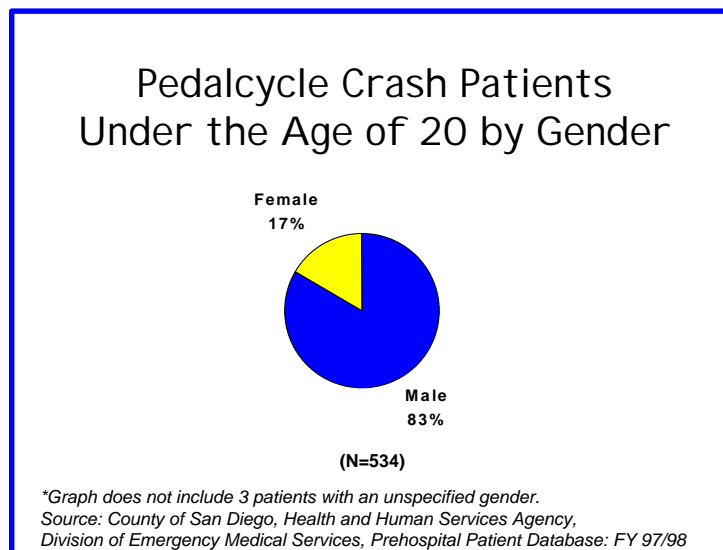
### Rocky's Story

Some people think that wearing a bicycle helmet isn't cool! How many of those people would like to trade places with Rocky?

Rocky was a twelve-year-old boy who was out riding his bicycle – without a helmet – when he was hit by a car. He had a very severe brain injury that

required surgery on his brain to remove a large amount of bleeding. Several physician specialists cared him for while he was in the hospital for fifteen days. At the time he was transferred to the rehabilitation service, he was having significant problems with coordination and remembering things. He spent another eight days getting help from a team of rehabilitation specialists. Months later, he continues to come to the rehabilitation clinic for additional help. Rocky's total hospital bill was \$145,000, enough to provide 21,000 bicycle helmets!

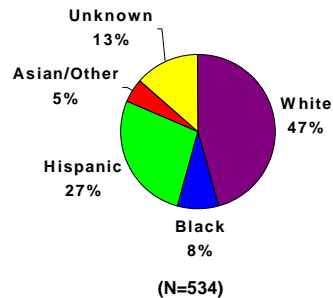
### Paramedic/EMT-1 Patients



Males were the major victims of pedalcycle crashes, comprising 83% of patients under 20. Whites made up the largest racial/ethnic group among pedalcycle crash patients (47%). Hispanics comprised 27%, Blacks 8%, and Asian/Others 5%. Race/ethnicity was unknown for 13% of patients.

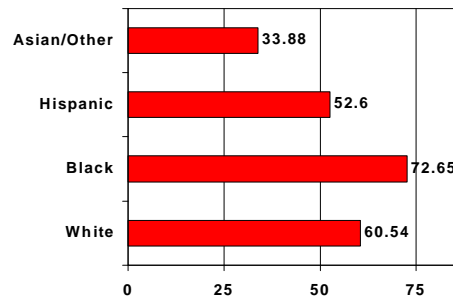
When race/ethnicity was known, Black children were at the highest risk of being injured in a pedalcycle crash (73/100,000), followed by Whites (61/100,000), Hispanics (53/100,000), and Asian/Others (34/100,000).

### Pedalcycle Crash Patients Under the Age of 20 by Race/Ethnicity



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

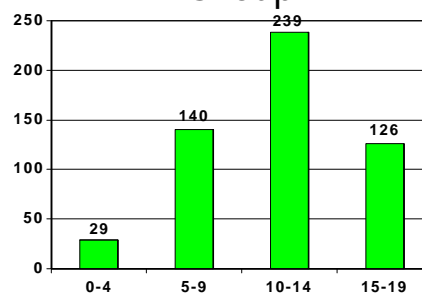
### Rate of Pedalcycle Crash Patients Under the Age of 20 by Race/Ethnicity



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

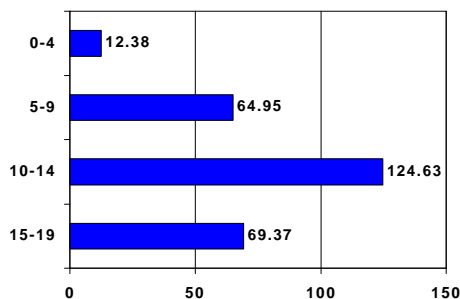
Pedalcycle injuries peaked in the 10-14 year age group, where the number and rate of injuries was nearly twice the 5-9 and 15-19 year olds. This is not surprising, considering that children in this age group may be seen as responsible enough to transport themselves, with the drop-off in the 15-19 year age group coinciding with the time when they obtain their driver's licenses.

### Pedalcycle Crash Patients Under the Age of 20 by Age Group



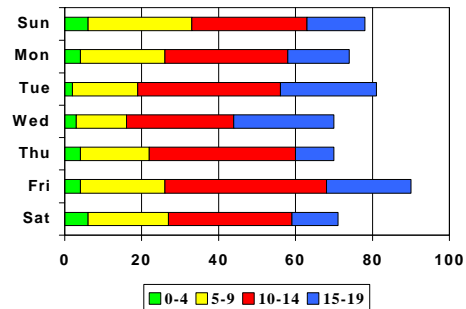
Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

### Rate of Pedalcycle Crash Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

### Pedalcycle Crash Patients by Age Group and Day of Week Injured

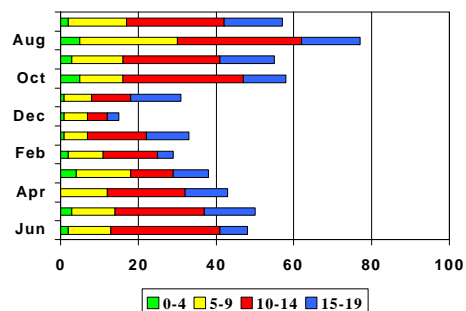


Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

Pedalcycle injuries do not vary a great deal by day of week, although more crashes occurred on Fridays than on any other day.

With San Diego's sunny climate, people are able to ride bicycles virtually year-round. The month with the fewest injuries by far was December, and the number of injuries increased steadily into the warmer months with a large peak in August.

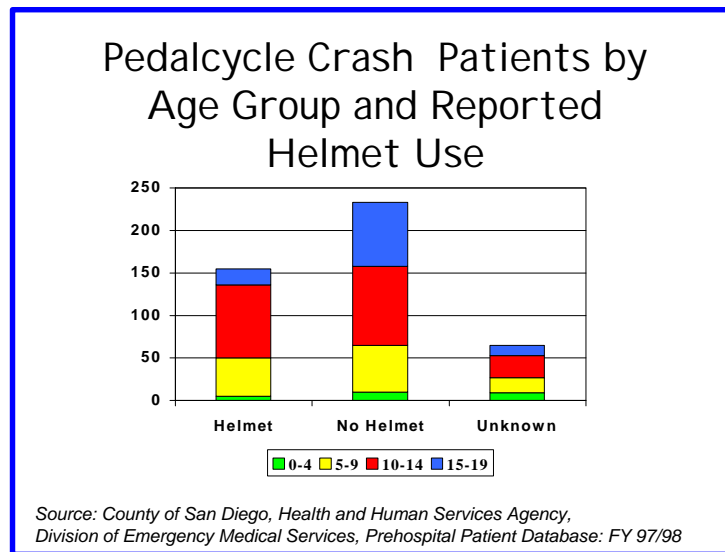
### Pedalcycle Crash Patients by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

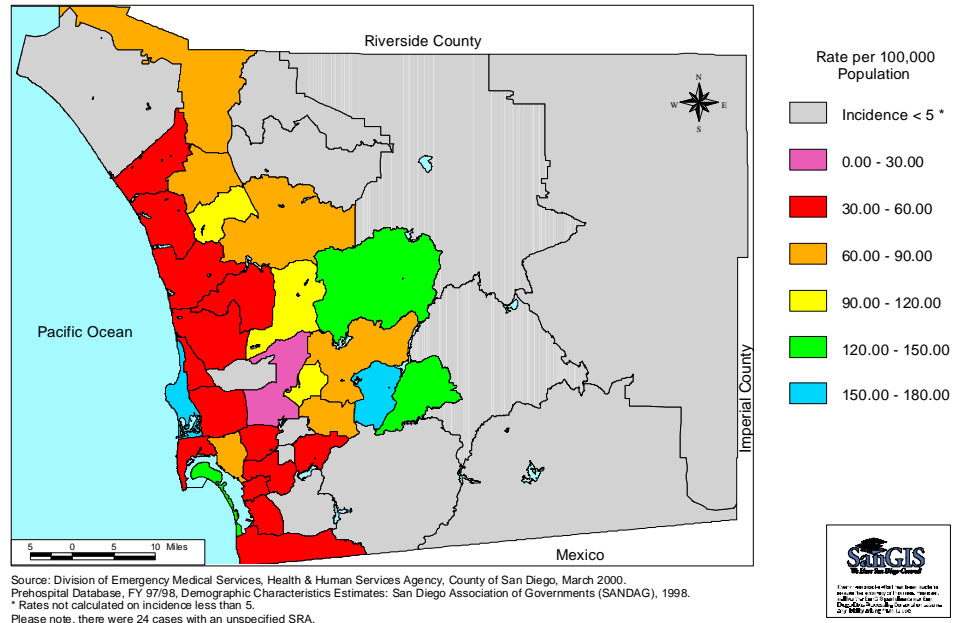


In spite of the increased vulnerability of pedalcyclists to injury, fewer than half of those involved in crashes were reported to have used a helmet. The percentage of patients who used helmets was especially low in the 15-19 year age group, in which only 18% were reported as using a helmet.



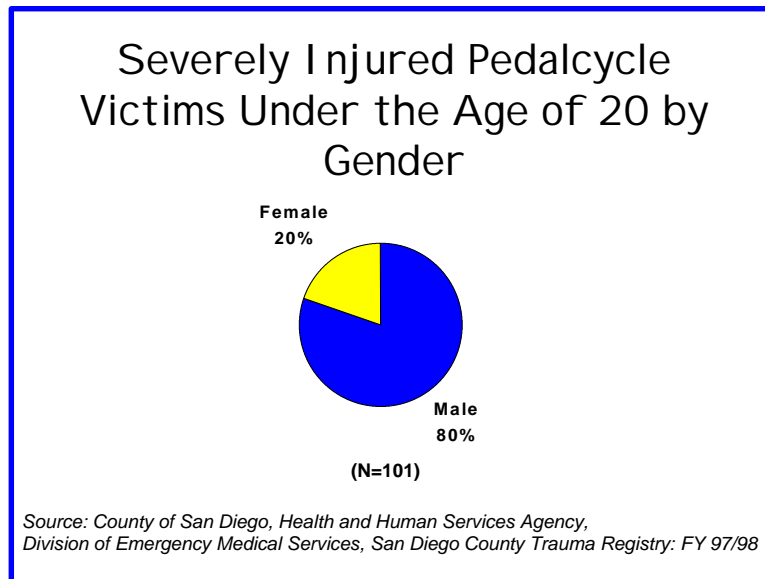
The Subregional areas with the highest rates of pedalcycle injury were Coastal (167/100,000) and Harbison Crest (180/100,000). The Coastal SRA encompasses the communities of Mission Beach, Pacific Beach, and part of La Jolla, all of which are popular areas for recreational cyclists because of the boardwalk that parallels the ocean and Mission Bay.

Paramedic/EMT Pedalcycle Crash Patients  
Under the Age of 20 by Sub-Regional Area

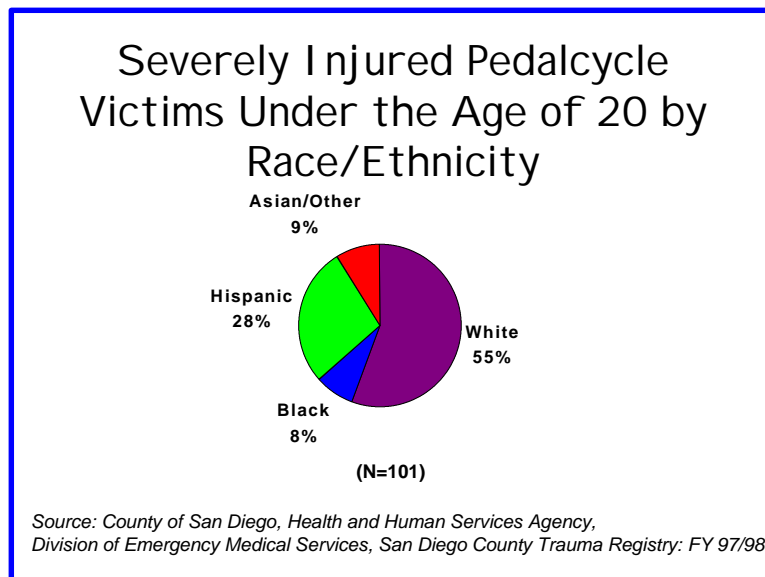


## Trauma Registry Patients

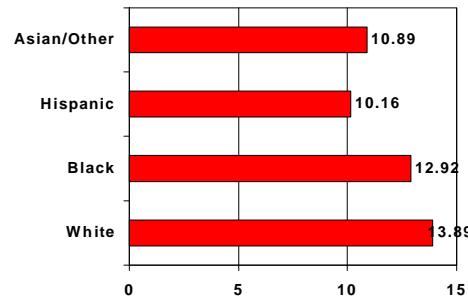
From July 1997 through June 1998, 101 cyclists under the age of 20 met the criteria to be included in the San Diego County Trauma Registry and survived their injuries. Eighty percent of these were male.



The majority of severely injured patients were White (55%), 28% were Hispanic, 8% Black, and 9% Asian/Other. The risk of being severely injured in a pedalcycle crash was slightly higher among White children (14 severe injuries per 100,000 children under 20).



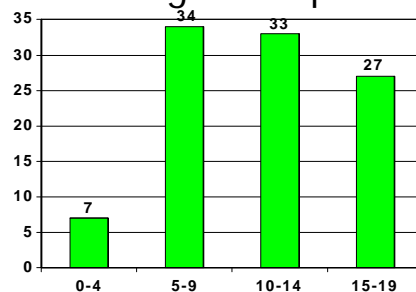
### Rate of Severely Injured Pedalcycle Victims Under the Age of 20 by Race/Ethnicity



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

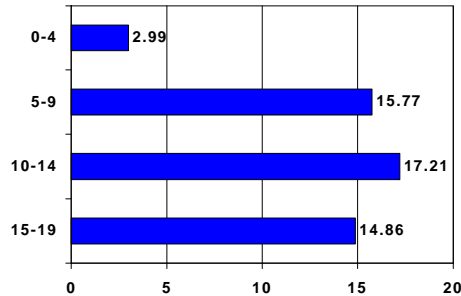
While children aged 10-14 years had the highest numbers and rates for pedalcycle injuries overall, severe injuries in this age group are not very different from 5-9 or 15-19 year olds. This means that injuries among 10-14 year olds tend to be less severe than injuries to victims in the other groups. Victims in the 5-9 age group may be more difficult for drivers to see and react to, and the 15-19 year olds, as discussed previously, may be at increased risk for a severe outcome because of their lower rate of helmet use.

### Severely Injured Pedalcycle Victims Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

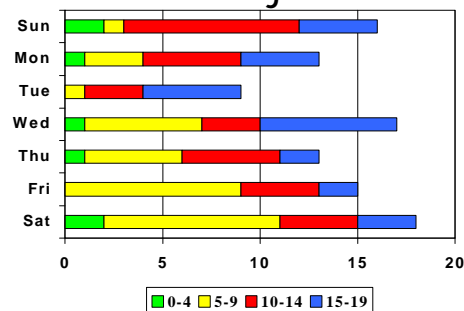
### Rate of Severely Injured Pedalcycle Victims Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

There was no clear pattern of severe injury by day of week. The highest numbers of injuries to 5-9 year olds occurred on Fridays and Saturdays, while 10-14 year olds experienced the most severe injuries on Sundays and the 15-19 year age group peaked on Wednesdays.

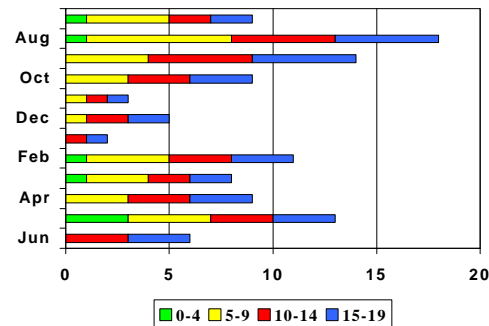
### Severely Injured Pedalcycle Victims by Age Group and Day of Week Injured



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

Severe injuries to cyclists clustered in the spring and summer months, with very low numbers occurring from November through January.

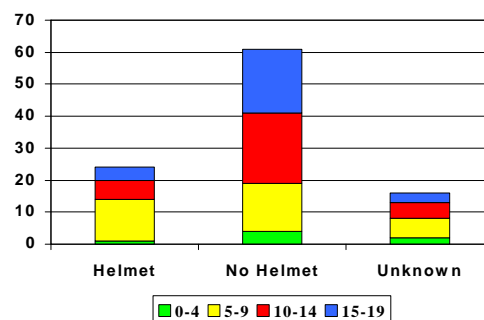
### Severely Injured Pedalcycle Victims by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

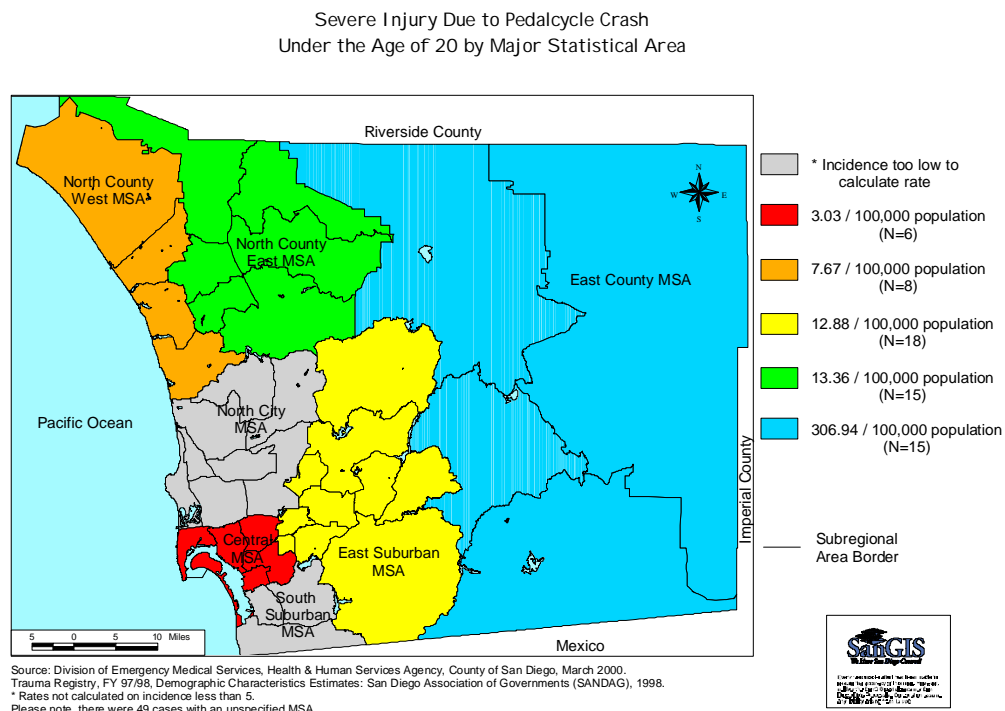
Many of the injuries to cyclists would have been less severe if the riders had worn helmets. Only 24% of severely injured patients were wearing a helmet at the time of the crash.

### Severely Injured Pedalcycle Victims by Age Group and Reported Helmet Use



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

The less populated areas of the county had the highest rates of severe pedalcycle injury. In these areas, cyclists may be more likely to ride alongside motor vehicle traffic moving at a high rate of speed on more narrow, rural roads.



## **San Diego Safe Kids Coalition Prevention Activities**

With the passage of the California State Law requiring all children under age 18 to wear bicycle helmets, there was an immediate reduction in the number of children seriously injured or killed as a result of brain injury from severe head trauma. The Safe Kids Coalition was a strong supporter of this legislation and has been working to increase the use of bicycle helmets since that time. In the first year following the passage of the helmet law, when helmet use was known, 31% of children involved in injury crashes were wearing helmets. This percentage has steadily increased to 45%. The number of deaths due to pedalcycle crashes has dropped to zero while the number of survivable injuries has increased. Clearly with only a 45% compliance rate, increased Coalition activities are needed in this area.

Enforcement of the law is very difficult due to the age of the children covered and varying socioeconomic concerns that may prohibit the purchase of helmets. Several programs in other areas have been successful at promoting helmet use by having law enforcement personnel reward children for wearing their helmets correctly with coupons and products from area merchants. Safe Kids Coalition is actively pursuing the replication of this type of program in San Diego County.

While the increase in helmet usage is encouraging, additional efforts must be undertaken to protect all child pedalcyclists. Safe Kids Coalition partners have been working to provide safe cycling instruction to community groups through participation in bicycle rodeos and special bicycle safety programs. Additionally, the Safe Kids Coalition partnered with the Santee Wal-Mart and Bell Helmets to conduct a Rally for Bike Safety on May 20, 2000. The City of Santee issued a proclamation declaring May 20<sup>th</sup> to be Bicycle Safety Day in Santee. The Santee School District distributed announcement fliers to over 9,000 students and preschool students in the community. Participants ranging in age from 3 to 15 were instructed on the rules of the road, proper helmet fit, and how to inspect and maintain their bicycles for safety.

A Safe Kids Coalition member, Lemon Grove Sheriff's Department has received a grant from the California Office of Traffic Safety to expand their award winning bicycle safety education program. This program consists of classroom instruction directed at learning safe riding practices. The program goes one step further and actually takes the children onto the streets of Lemon



Grove to practice the safe cycling behaviors they learned in the classroom in real life situations. The Safe Kids Coalition is working with the Lemon Grove Sheriff's Department to help expand this program throughout San Diego County. This effort is supported by the San Diego Bicycle Coalition.

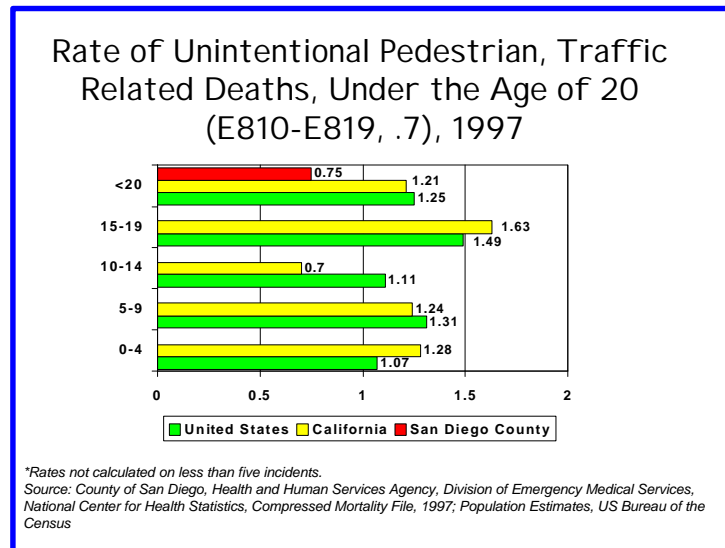
## **Prevention Activities You Can Do**

- ♥ Always wear a helmet when bicycling. Model appropriate safety behavior for your children. If you don't wear a helmet, chances are your children won't once they are out of your sight.
- ♥ Make sure your helmet fits properly. A properly fitted helmet must sit flat on the head, not tilted to the front or rear, with snugly fitted straps. A helmet hanging from the handlebar cannot protect your head. If you need assistance in checking the fit of your helmet or your child's helmet, contact the Safe Kids Coalition.
- ♥ Be sure that your child always wears a helmet regardless of where they are riding. Many injuries occur to very young children not wearing helmets while riding tricycles or motorized kiddie carts in driveways or on sidewalks.
- ♥ Before your child rides in traffic, make sure your child knows the rules of the road for your community. Local traffic laws vary between law enforcement jurisdictions and rules have changed greatly over time.
- ♥ Ride with your child until you are confident in their abilities to ride safely. Stress to your child that riding a bicycle is a serious responsibility and that they must conform to traffic laws for their own safety and the safety of others.

## Pedestrian Crash

Pedestrian crash related injuries pose a particular threat to the elderly and the young.

Nationally, a child is killed in a pedestrian crash every 90 minutes and rates are highest



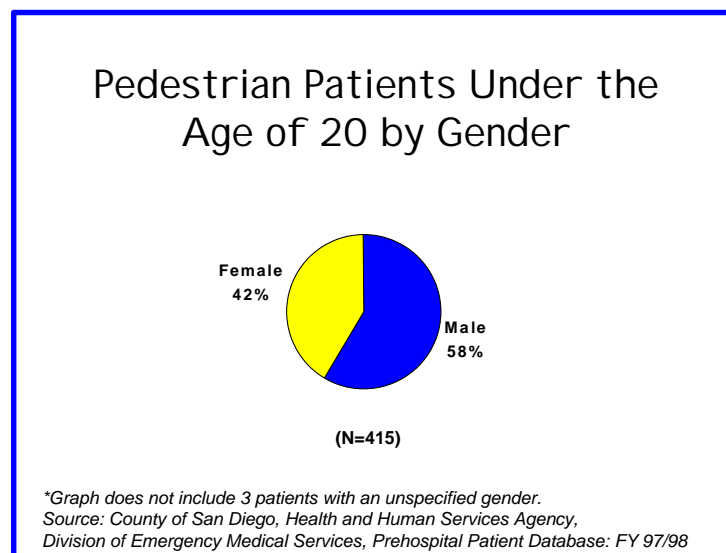
among 15-19 year olds and lowest among 10-14 year olds. In San Diego, the number of pedestrian deaths was too low to calculate age specific rates, however the overall rate of pedestrian death for children under age 20 was substantially lower than state or national rates. There are a number of factors that contribute to childhood pedestrian injuries including traffic volume and patterns, geographic location of child attractions such as schools, parks and convenience stores, as well as the age and pedestrian experience of the child. **Younger children tend to be injured darting out into traffic while older children are more likely to be injured at busy intersections and are less often at fault.**

## Travis' Story

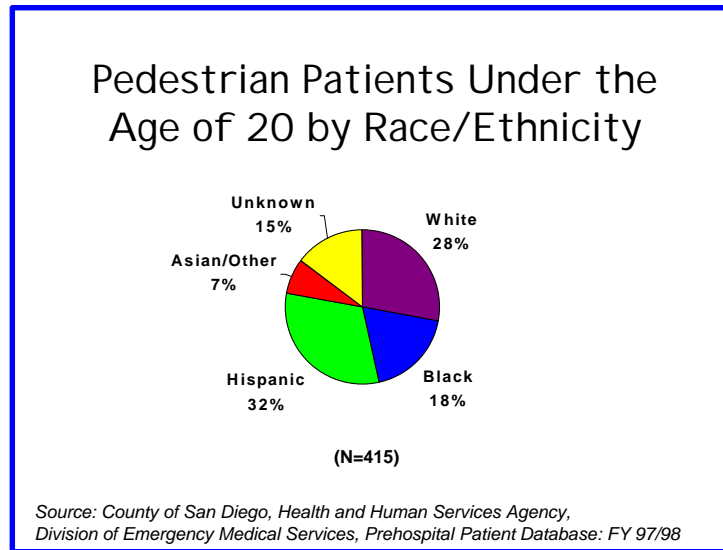
Three year old Travis had had a fun time at the bowling alley with his family. They were walking home together and were crossing a street when Travis darted ahead and was struck by a car. He was in very critical condition when he arrived at the hospital and everything possible was done to save his life to no avail. He died on that same day with his family in shock and grief. The only good thing that came out of this tragedy was that Travis gave the gift of life to several other children when his family agreed to organ donation. Travis' hospital bill was \$15,000, but the real cost was the lifetime of grief his family will have to endure.

## Paramedic/EMT-1 Patients

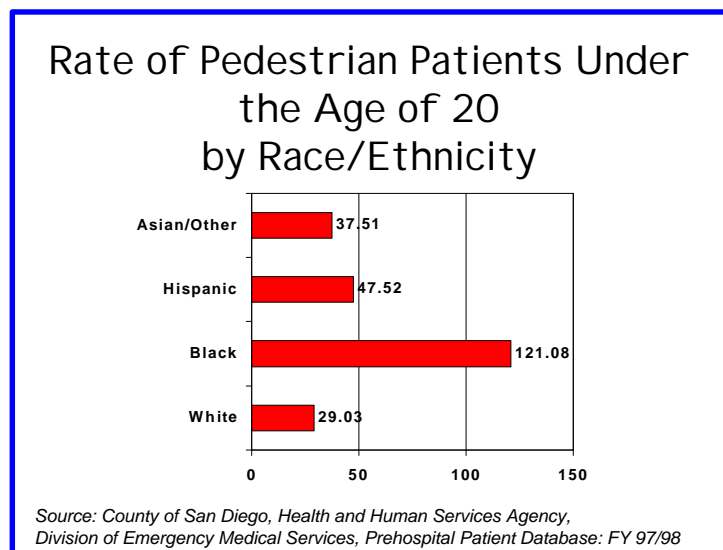
Paramedics responded to 415 patients under the age of 20 who had been injured as pedestrians. Males made up 58% of these.



White children made up a much smaller percentage of pedestrian injuries than they did for other causes. Hispanics actually had the highest number of pedestrian injuries, with 32%, Whites made up 28%, Blacks 18%, and Asian/Others 7%. Race/Ethnicity was unknown for 15% of patients.

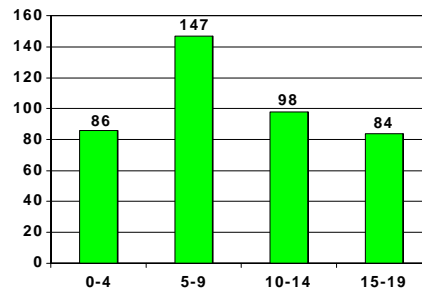


Black children had the highest risk of pedestrian injury, with a rate more than twice that for Hispanics, three times higher than Asian/Others, and four times the White rate. This may be because of the large Black concentration in urban areas where people have to walk along very busy streets.



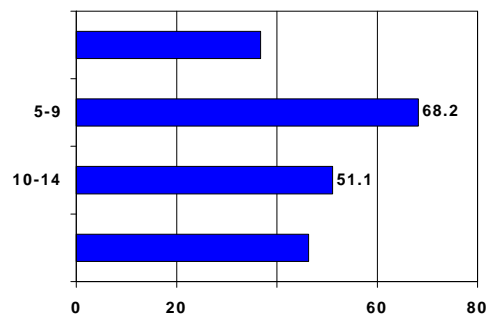
Youngsters from five to nine years of age are at the highest risk of pedestrian injury. This is partially true because they are harder for drivers to see, and also because they tend to be less likely than older children are to pay attention to the hazards around themselves.

### Pedestrian Patients Under the Age of 20 by Age Group



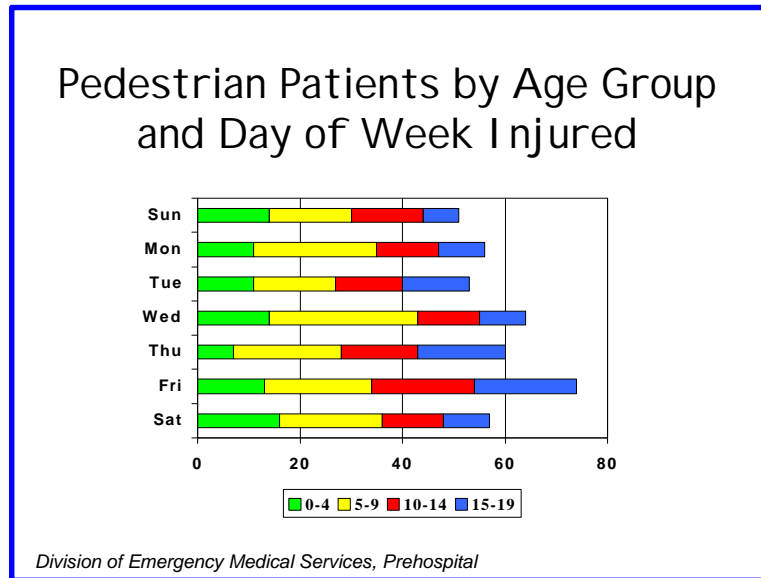
Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

### Rate of Pedestrian Patients Under the Age of 20 by Age Group

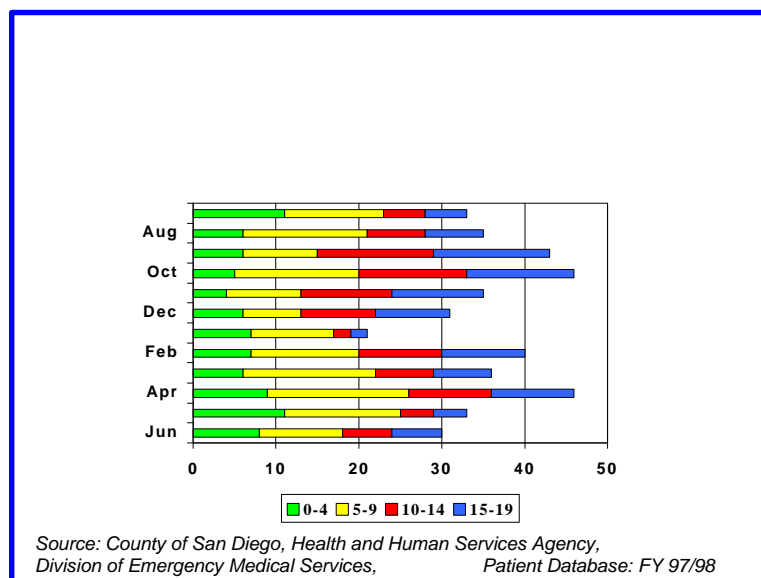


Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

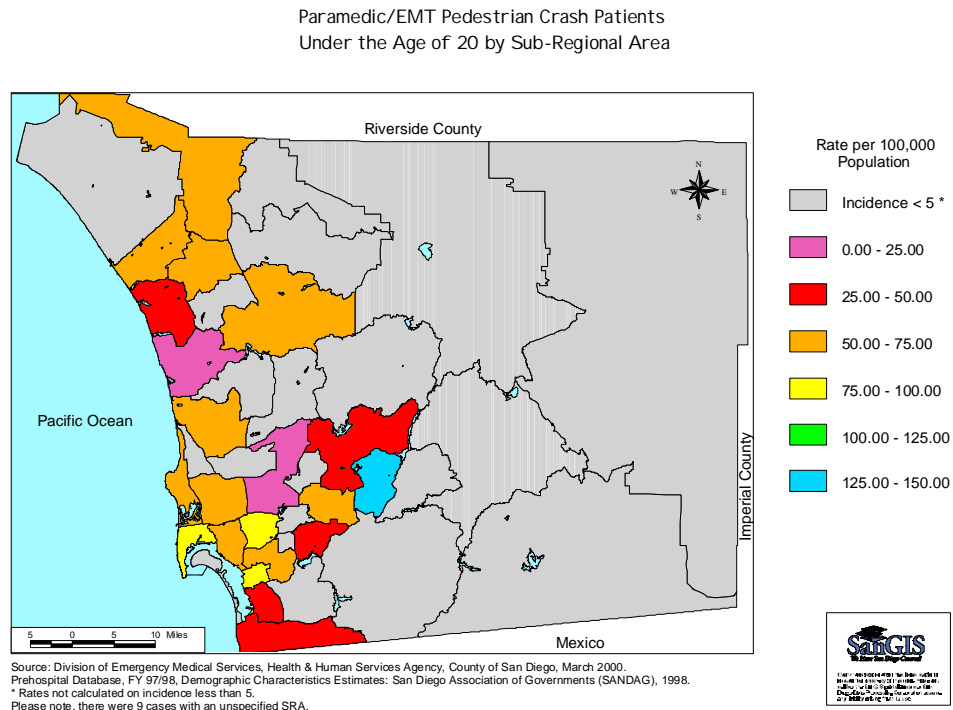
More pedestrian injuries happened on Fridays than on any other day of the week, but there was no clear pattern for any age group.



The number of pedestrian injuries peaked during September/October, and again around April. January saw the fewest pedestrian injuries of any month. This fluctuation is likely to be associated with children walking to and from school.

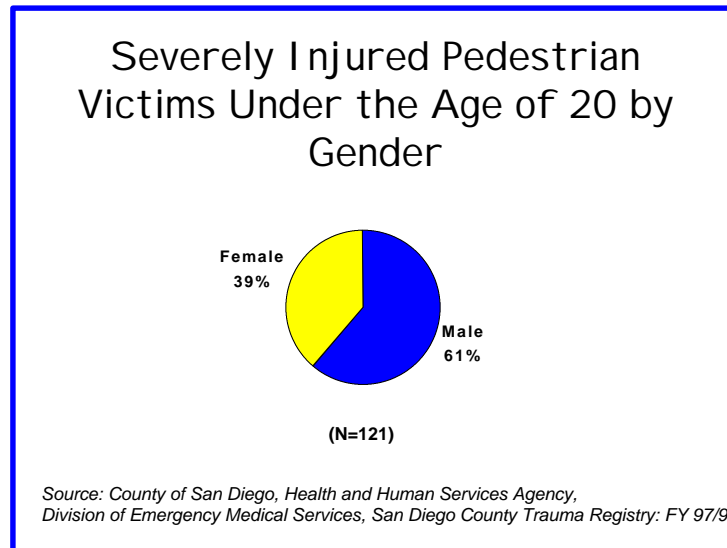


The Peninsula, Mid-City, and National City subregional areas all experienced pedestrian crash rates between 75 and 100 per 100,000. These are among the more urban areas of the county, with a high level of traffic congestion especially as people are going to and from work.

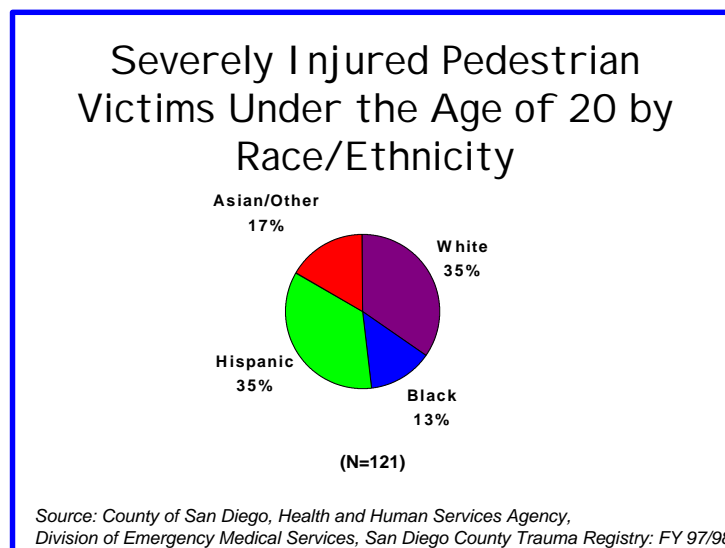


## Trauma Registry Patients

Twenty-nine percent of pedestrian crash victims were severely injured. Out of the 121 severely injured pedestrians, 61% were male.

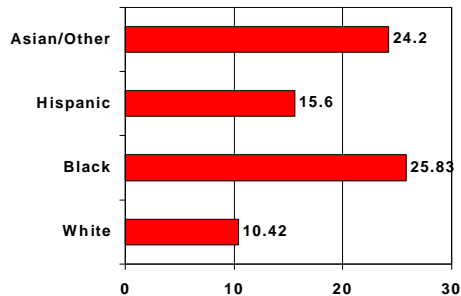


Whites made up 35% of the severe pedestrian injuries, Hispanics also comprised 35%, Blacks 13%, and Asians/Others 17%. Blacks and Asians were at the greatest risk of severe injury from pedestrian crashes, with 26 and 24 severe injuries per 100,000 population, respectively. It is interesting to note that, while Asians were at relatively low risk of pedestrian injuries overall, their likelihood of a severe outcome resulting from injuries to pedestrians was quite high.



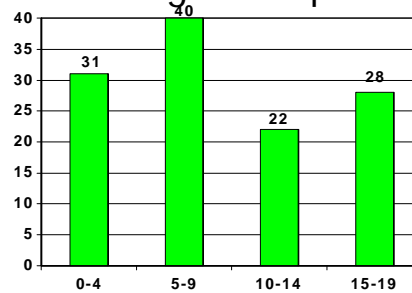


### Rate of Severely Injured Pedestrian Victims Under the Age of 20 by Race/Ethnicity



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

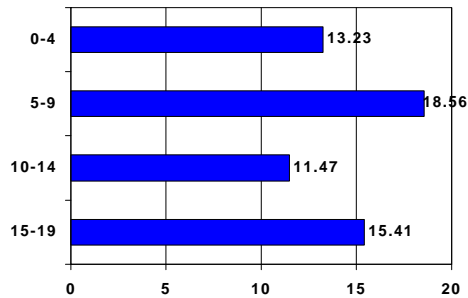
### Severely Injured Pedestrian Victims Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

The number of severe outcomes was highest in pedestrians aged 5-9, although in relation to the number of pedestrians injured, the most severe injuries were in children under 5 years of age.

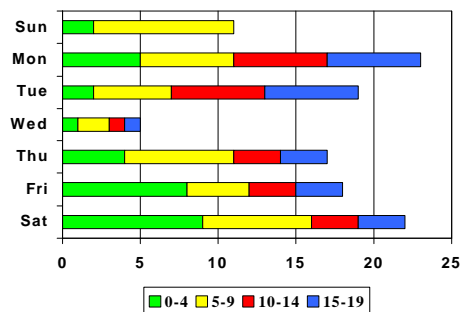
### Rate of Severely Injured Pedestrian Victims Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

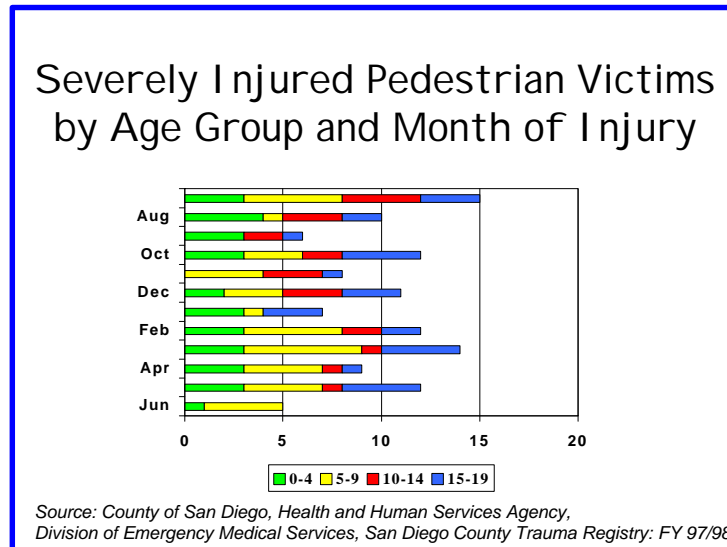
There was no clear pattern to severe pedestrian injuries according to day of week, although Wednesday had the fewest by far of any day with only five for the entire year.

### Severely Injured Pedestrian Victims by Age Group and Day of Week Injured



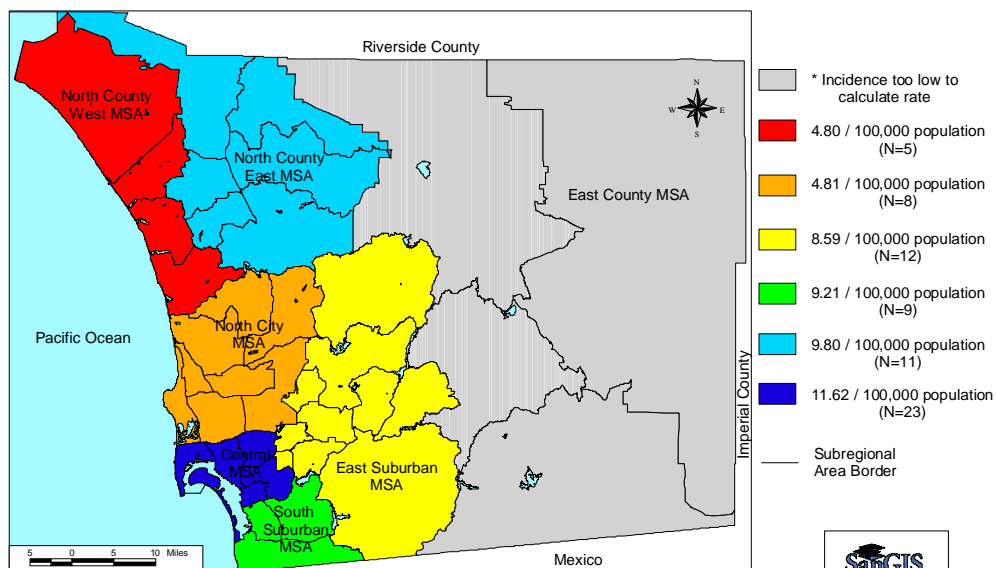
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

While July had the highest number of severe pedestrian injuries, the number fluctuated widely throughout the year.



The Central MSA, which consists of the city of San Diego as well as other largely urban communities, had the highest rate of severe pedestrian injury in the county.

Severe Injury Due to Pedestrian Crash  
Under the Age of 20 by Major Statistical Area



### Local EMS Research

**Background:** In fiscal year 1996/1997, 325 paramedic calls were made due to motor vehicles verses pedestrian incidents involving children 0-14 years of age. This ranks as the 3rd highest reason for paramedic calls in the 0-4 and 5-9 age groups and the 5th highest reason in the 10-14 age group. This problem is addressed in Healthy People 2010; the 2010 objective is to reduce pedestrian injuries to no more than 26 per 100,000.

The 96/97 fiscal year of the San Diego County Emergency Medical Services Prehospital data records, Trauma records, Medical Examiner's records, and the CHP Statewide Integrated Traffic Records System (SWI TRS) were queried to determine factors of pedestrian incidents involving 0-14 year olds.

**Conclusion:** The results showed that 73% of the Prehospital, 78% of the SWI TRS, 74% of the Traumas and 66% of the Deaths occurred during the weekday. Furthermore, as presented in the chart below, 50% and 52% of the pedestrian Prehospital and SWI TRS incidents occurred during the weekday hours of 7:00a.m. – 9:00a.m. and 2:00p.m. – 6:00p.m. To put these numbers in perspective, over 50% of the childhood pedestrian injuries and deaths took place in only 30 of the total 168 hours in a week. These hours most likely reflect the hour children travel/walk to and from school. Children were at fault 56% of the time with an overwhelming amount of these incidents due to “not crossing in the cross-walk”.

### San Diego Safe Kids Coalition Prevention Activities

The Safe Kids Coalition has been aggressively pursuing grant funding to address childhood pedestrian injury prevention. In collaboration with Safe Communities and other injury prevention organizations, proposals targeting the areas of San Diego County with the highest rates of pedestrian injury have been submitted to state and national agencies for consideration.

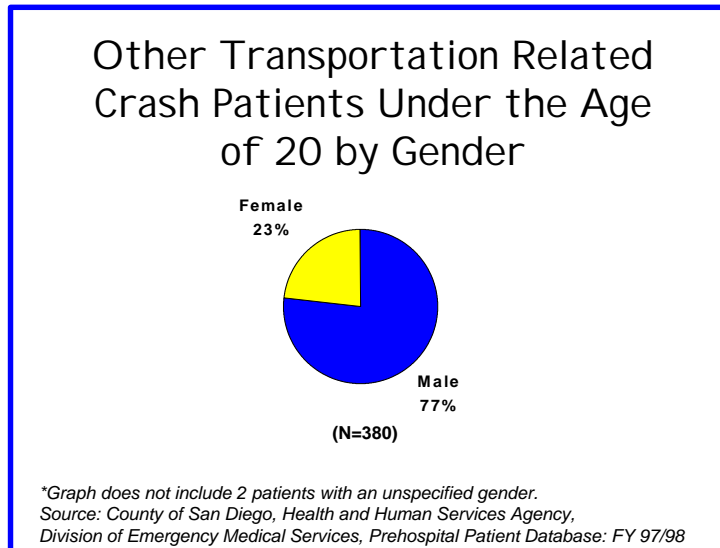
The Safe Kids Coalition supported state legislation establishing the Safe Routes to School Program. This program provides funding for counties to implement environmental changes such as pedestrian walkways, crossing signals and marked crosswalks in an effort to reduce pedestrian injuries. In San Diego County, a Safe Routes to School Plan is currently being developed with input from coalition members.

Ninth District Parent Teachers Association (PTA), a Safe Kids Coalition member, conducts Walk a Child to School Day activities throughout San Diego County. This program originates in the California Department of Health Services and encourages parents and policy makers to walk children to school so that they can observe safety hazards and stress safe pedestrian behavior. This program will be expanded to additional schools in the coming year. In order to find out if your child's school participates in this program contact the Safe Kids Coalition.

### **Prevention Activities You Can Do**

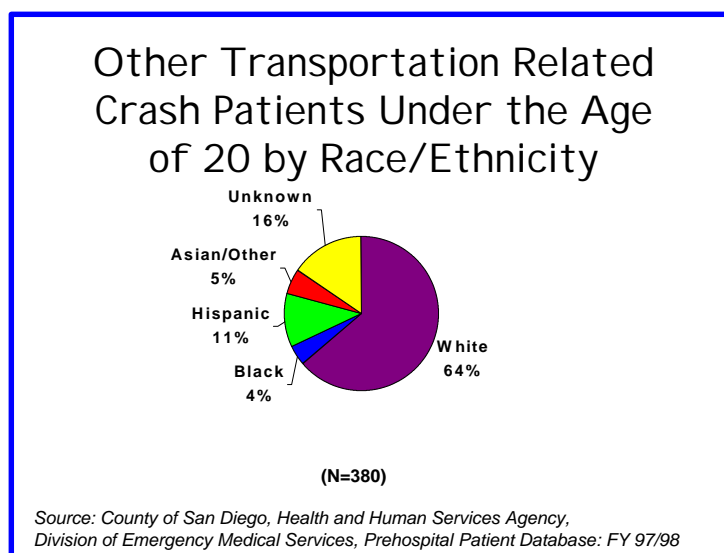
- ♥ Never allow children under the age of 10 to walk in traffic unaccompanied by an adult. Children lack the ability to adequately assess the dangers posed by motor vehicle traffic. Teaching your child to look both ways before they cross is not enough to keep them safe.
- ♥ Walk with your child. Children need you to model safe pedestrian behavior and to determine if the route they are taking is a safe one.
- ♥ Make sure your child knows and follows the rules of the road. Local research has shown that children are most likely injured "not crossing in the crosswalk".
- ♥ As a driver, always be aware of the potential danger of pedestrians and travel at safe speeds, allowing sufficient time to stop safely, if necessary.
- ♥ Anticipate children playing in residential areas and around schools.
- ♥ Teach your child to make eye contact with an oncoming driver before they enter the road even if they have the right of way. Drivers do not normally look for pedestrians.
- ♥ If you know of an intersection or area in your community that is unsafe for pedestrians, advocate for environmental changes. Call the Safe Kids Coalition and we will help.

## Other Transportation Related Crashes

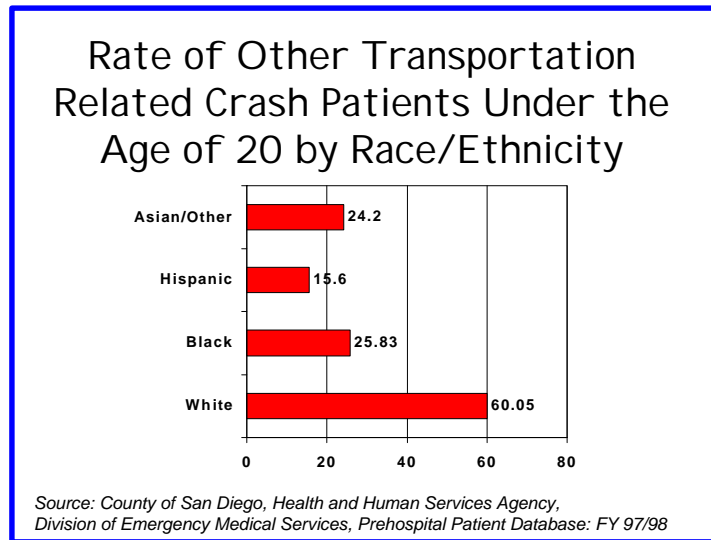


### Paramedic/EMT-1 Patients

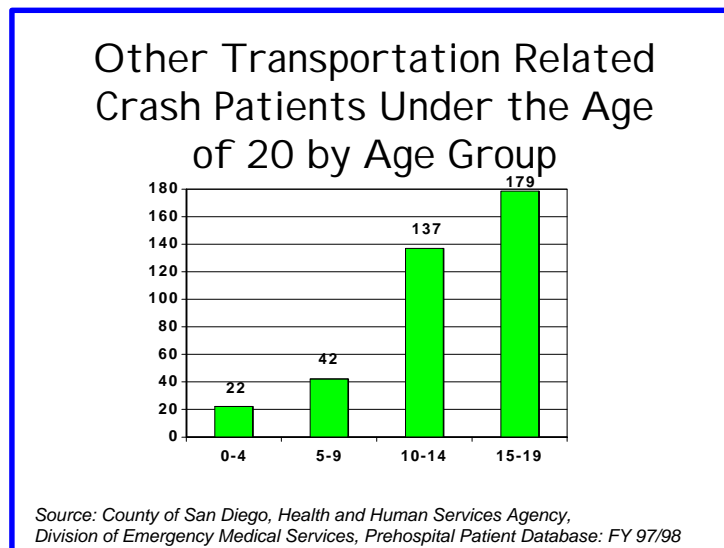
This section includes crashes occurring as a result of other means of travel which may not have fit in any of the other sections, or where the number of injuries was too small to warrant discussing each cause individually. This includes animals (such as horses) that were ridden, water transportation, all-terrain vehicles (ATV's), motorcycles, non-motorized transport (such as horse-drawn carriages), and other vehicles. Out of the 380 patients injured while using "other transportation," the majority (77%) was male.



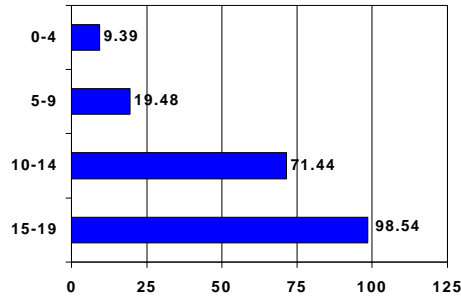
Whites made up the majority (64%) of patients, and also had the highest risk of injury while using other transportation. White children were more than twice as likely as children from other racial/ethnic backgrounds to be injured in this manner.



The number of injuries from other transportation increased dramatically in the 10-14 and 15-19 year age groups in comparison with children younger than ten years. The risk of injury followed the same pattern, with children younger than ten years experiencing injury rates of less than 20 per 100,000, while 10-14 year olds increased to 71/100,000 and 15-19 year olds had a rate of 99/100,000.

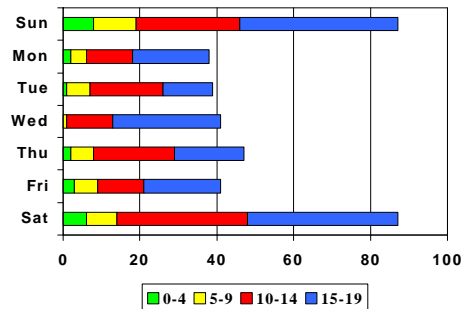


### Rate of Other Transportation Related Crash Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

### Other Transportation Related Crash Patients by Age Group and Day of Week Injured



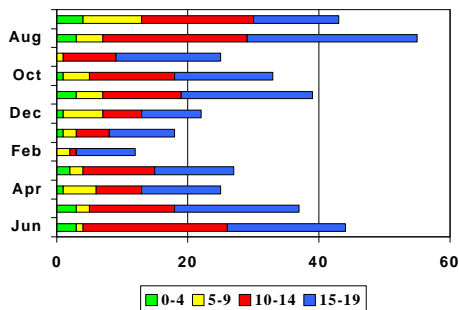
Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

As most of these modes of transportation are associated with leisure time activities, it is not surprising that 46% of these injuries occurred on Saturdays and Sundays.



These injuries clustered during two time periods. The larger cluster occurred during the summer months with a peak in August, and a smaller increase occurred in November.

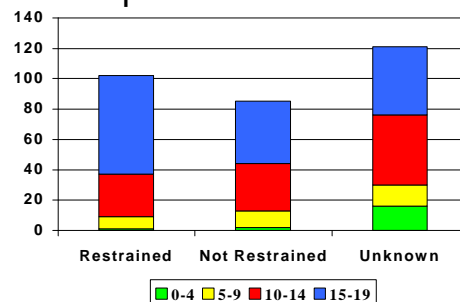
### Other Transportation Related Crash Patients by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

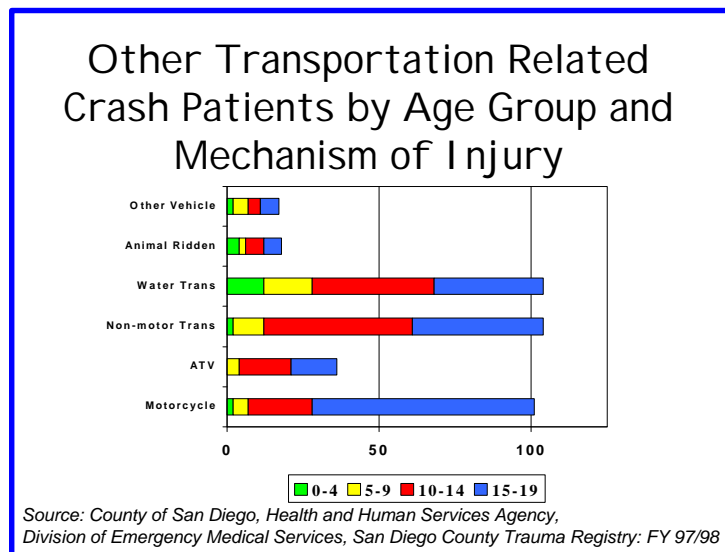
Not all of these alternative transportation modes come equipped with safety restraints, but it is interesting to note that only 32 patients were restrained in some way at the time of their mishap.

### Other Transportation Related Crash Patients by Age Group and Reported Restraint Use



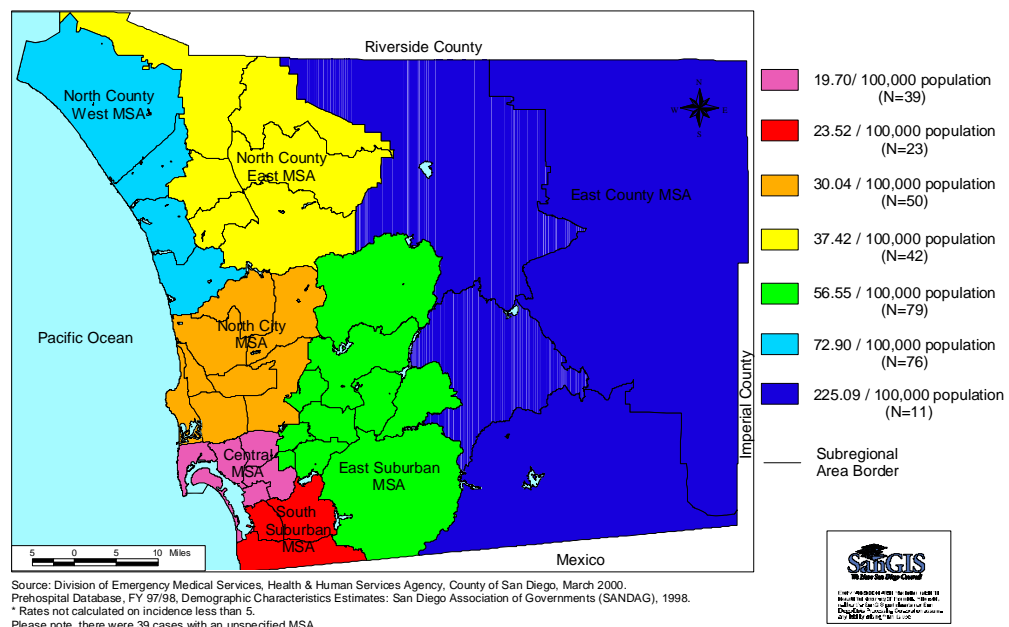
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

As we might suspect in a coastal county such as San Diego, water transportation was responsible for 27% of these crashes. Other common modes were non-motorized transportation and motorcycles.



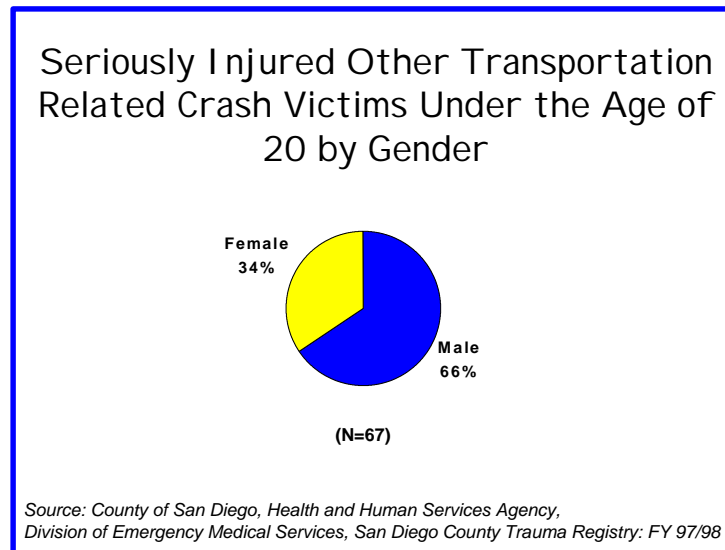
The greatest numbers of injuries occurred in the East Suburban and North County West MSA's, although the highest rate occurred in the sparsely-populated East County MSA.

Paramedic/EMT Other Transportation Related Patients  
Under the Age of 20 by Major Statistical Area

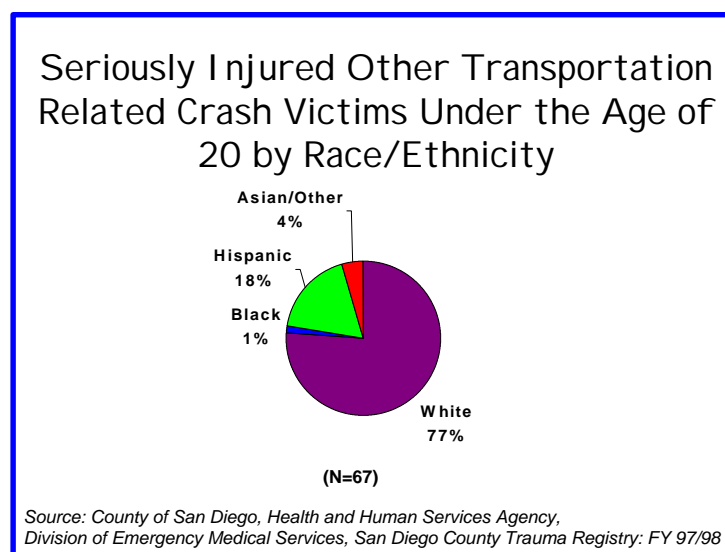


## Trauma Registry Patients

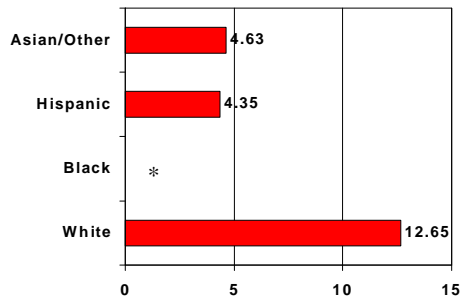
Sixty-seven children under 20 years of age were severely injured using other transportation means. Two-thirds of these were male.



Whites made up the predominant race/ethnic group among these serious injuries, with 77%. Hispanics comprised 18%, Asian/Others 4%, and 1% were Black. Whites were nearly three times more likely to be seriously injured in a crash involving alternative transportation



### Rate of Seriously Injured Other Transportation Related Crash Victims Under the Age of 20 by Race/Ethnicity

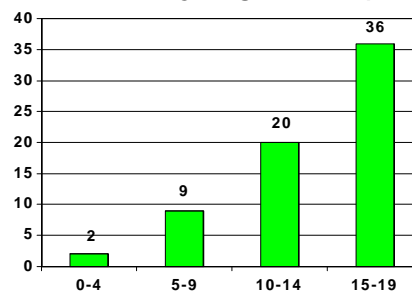


\*Rates not calculated on less than five incidents.

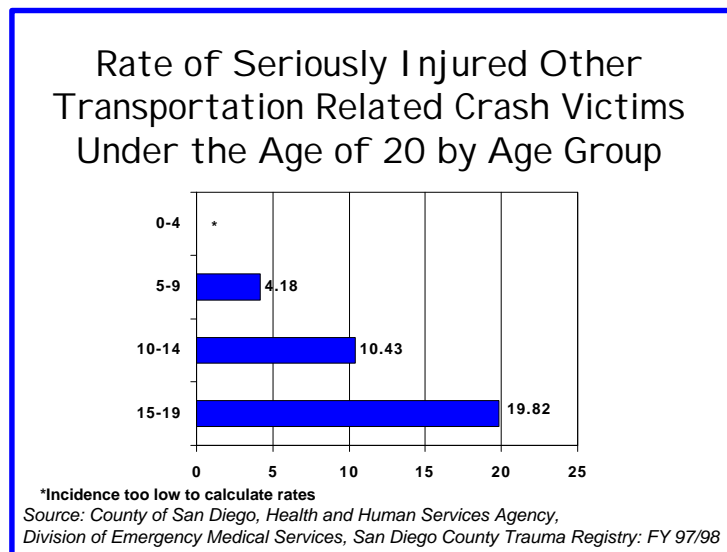
Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

The number and rate of severe injuries in this category increased steadily with increasing age. The rate for 15-19 year olds was nearly twice the rate for 10-14 year olds, who in turn were more than twice as likely as 5-9 year olds to be seriously injured.

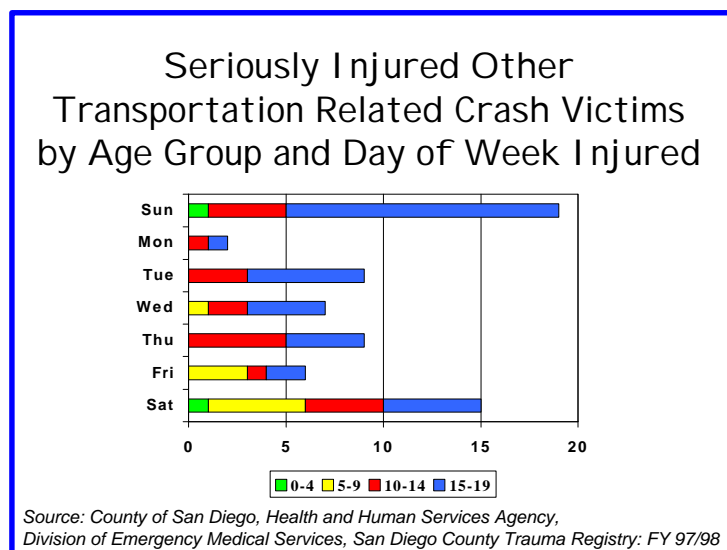
### Seriously Injured Other Transportation Related Crash Victims Under the Age of 20 by Age Group



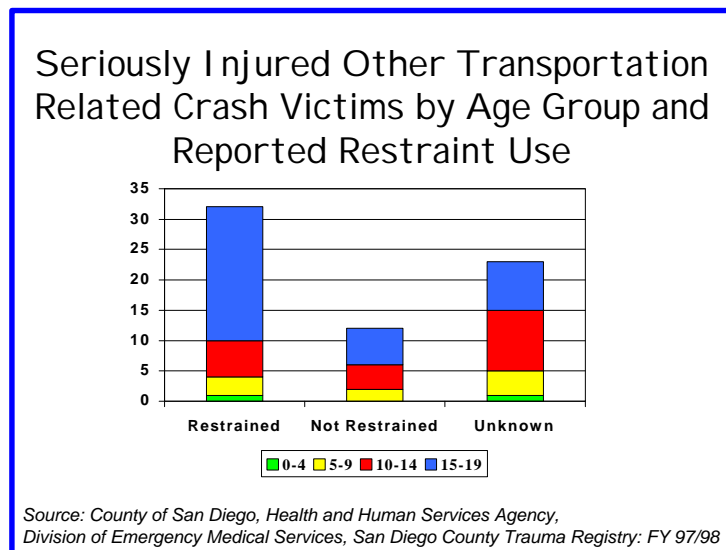
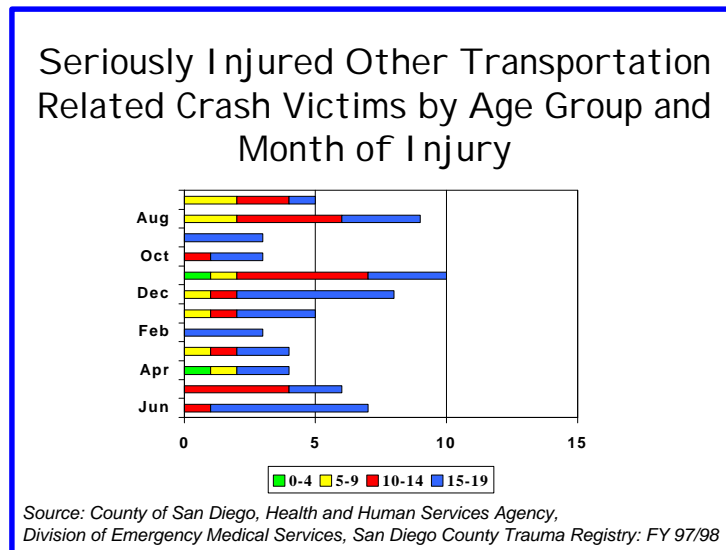
Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98



More than half of the severe injuries occurred on Saturdays and Sundays, which was when most of the leisure-time activities associated with these modes of transportation were used.

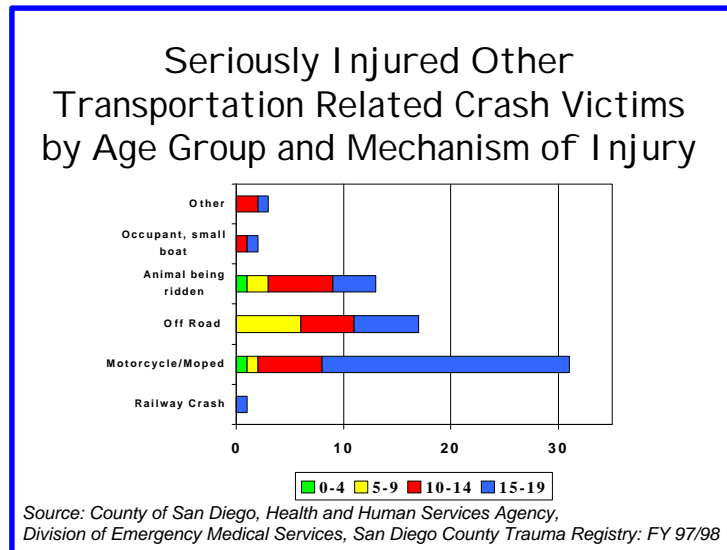


Severe injuries, particularly for the 15-19 year olds, seemed to cluster during the summer and winter months, when children are out of school.



Victims were counted as being restrained if they wore helmets (as in motorcycle, mopeds, and ATV crashes). Thirty-two (48%) victims did use a helmet or safety restraint when the crash occurred.

Patients were injured most often from riding motorcycles or mopeds (46% of severe injuries). ATV's made up 25% and animals being ridden comprised 19% of the severe injuries to young users of other transportation means.



## **San Diego Safe Kids Coalition Prevention Activities**

The Safe Kids Coalition supported activities requiring equestrian helmets to be worn by all children under age 18. A program of the National Safe Kids Campaign and Troxel Enterprises, a helmet manufacturer, provides low cost equestrian helmets when ordered through a local Safe Kids Coalition. The Sports and Recreation task force plans on distributing educational materials concerning the need for equestrian helmet use and the availability of low cost helmets to various horse riding clubs in the county in the coming year.

The Safe Kids Coalition supported efforts to defeat recent legislation to repeal the mandatory motorcycle helmet law. Once again, the legislation was defeated.

The Safe Kids Coalition also supported efforts to require that drivers of motorized personal watercraft be at least 16 years of age. Motorized personal watercraft include jet skis. These vehicles are not toys. They are powerful machines that can and have severely injured or killed riders, swimmers and others in their paths.

## **Prevention Activities You Can Do**

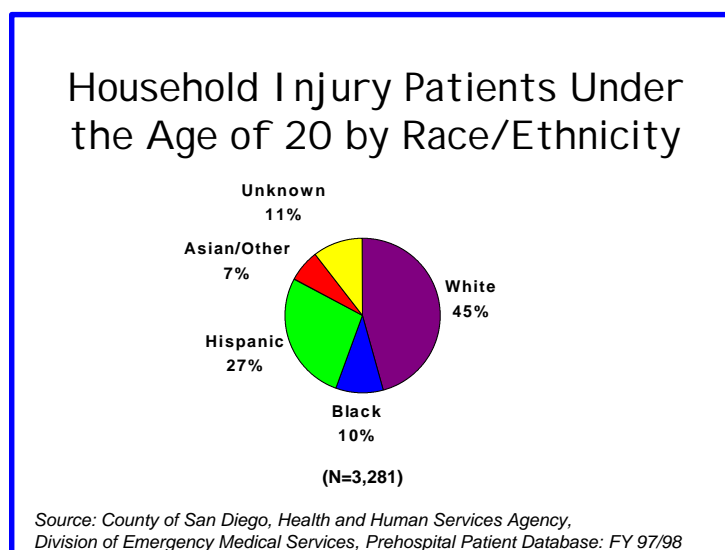
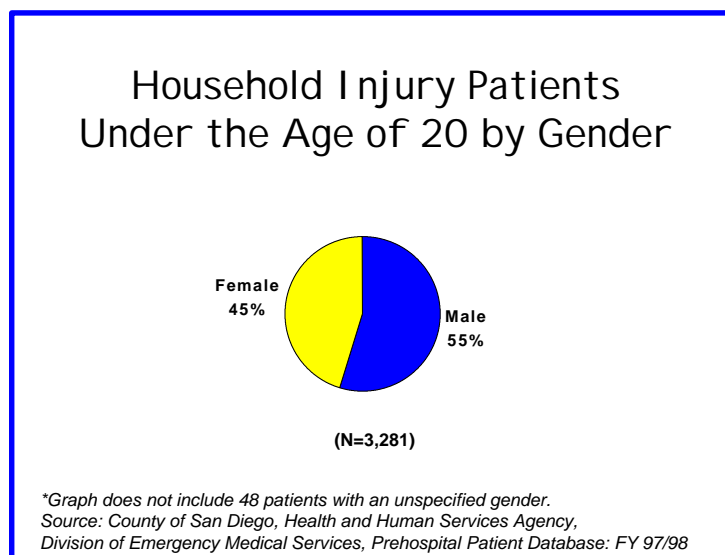
- ♥ Always wear a helmet when riding a horse or other animal.
- ♥ Passengers and drivers of motorcycles should wear full protective gear including helmets, boots and long sleeve shirts and pants.
- ♥ All passengers on watercraft should wear Coast Guard approved personal flotation devices at all times. Floaties, water wings or other inflatable toys cannot provide the same level of protection as lifejackets.
- ♥ Use protective gear when riding all terrain vehicles (ATVs). ATVs require the same level of physical protection as motorcycles.
- ♥ Extend the "Don't Drink and Drive" message to ATV's and watercraft.



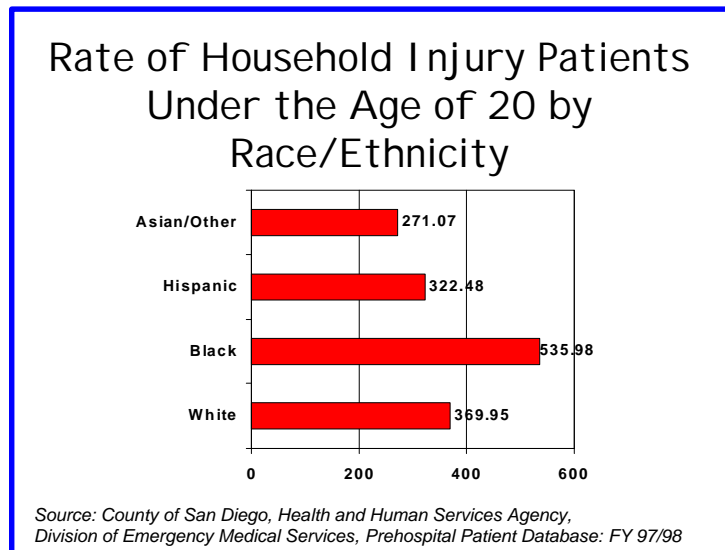
## Household Injuries Overall

Those injuries which are considered to be household related include burn and scald injuries, suffocations, falls, bites and stings, unintentional poisonings, unintentional firearm injuries and unintentional cutting and piercing injuries. Since each of these injury types have very different injury patterns and prevention opportunities, they are discussed in detail separately.

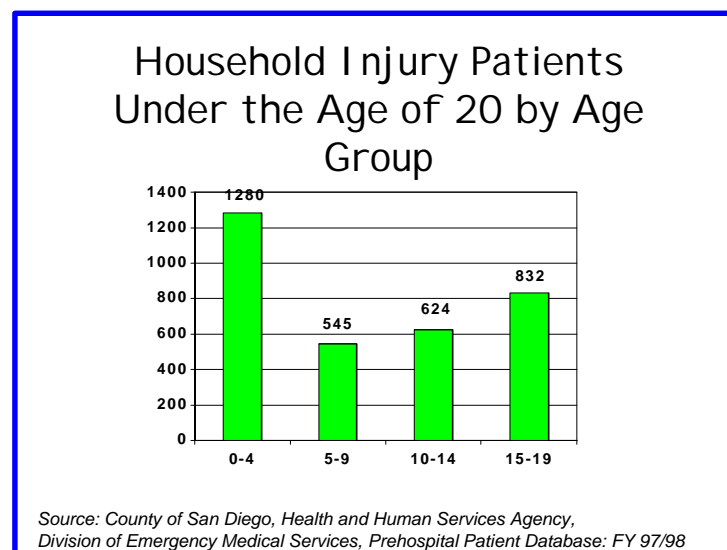
Overall, there were 3,281 children injured in household related injuries. Just over half (55%) were male.



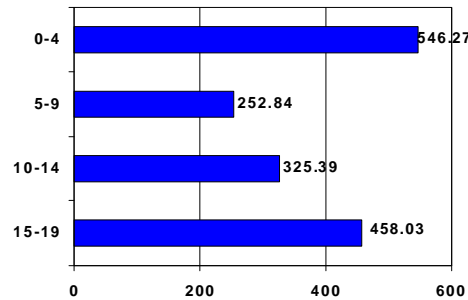
While injuries to Black children accounted for only 10%, the rate of household related injuries among Black children was double that of Asian/Other children, meaning that they were at twice the risk of being injured as Asian/Other children. White children accounted for the greatest percentage of injuries (45%) and were at next greatest risk with a rate of 369.95/100,000.



Forty percent of the children injured were under the age of five. This age group also had the highest rate of injury at 546.27 injured children for every 100,000 children in that age group. The age group at lowest risk of household related injury was the 5-9 year olds. This group had the lowest number of injuries (N=545) and the lowest rate of injury (252.84/100,000).

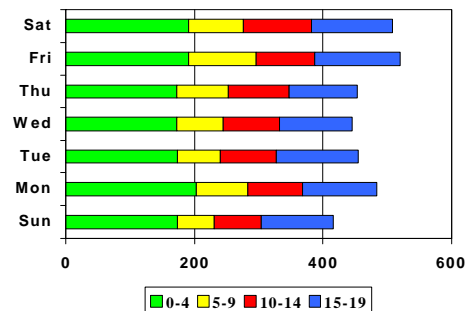


### Rate of Household Injury Patients Under the Age of 20 by Age Group



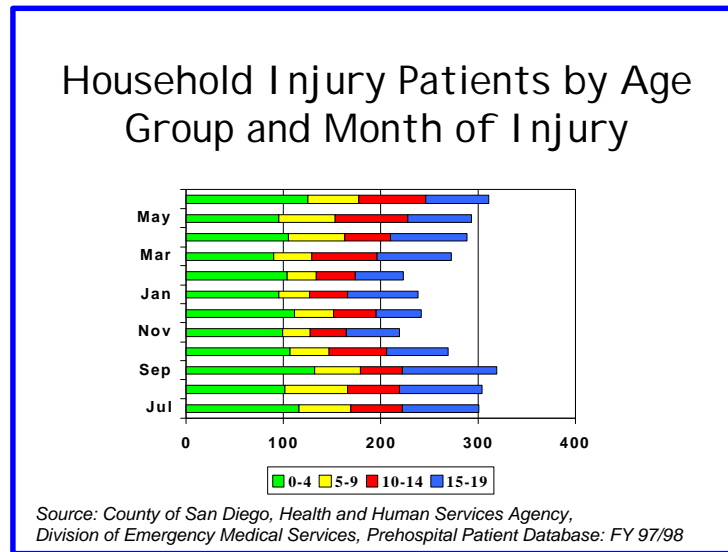
Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

### Household Injury Patients by Age Group and Day of Week Injured



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

There was no single day of week that stood out as riskier for any age group, although the fewest household injuries occurred on Sundays.



Of any month, the most injuries occurred in September. The summer months were significantly higher overall than the winter months. This pattern was less apparent among children under age 5.

## San Diego Safe Kids Coalition Prevention Activities

The Safe Kids Coalition was approached by Coalition partner The San Diego Safety Council to assist in the development of a home inspection program aimed at reducing injuries sustained in the home through the use of proven prevention strategies. The result of this collaboration was *HOME SAFE HOME*. This program utilized trained injury professionals, to conduct in home inspections. These inspections varied in cost based on the size of the home being assessed. Using a specially designed checklist, the *HOME SAFE HOME* assessors surveyed the home and provided the client with important safety information concerning risk areas observed and how simple steps, such as using a safety gate, could help reduce the injury risk.

The program was successful in attracting retail outlet Home Depot as a program affiliate. Home Depot offered *HOME SAFE HOME* clients a 10% discount on all recommended home safety products. Additionally, Home Depot locations displayed banners advertising the *HOME SAFE HOME* program and their affiliation with the San Diego Safe Kids Coalition and the San Diego Safety Council. The *HOME SAFE HOME* program has been featured on numerous media and print features. Currently the San Diego Safety Council is seeking grant funding to expand this program to low, socioeconomic areas of San Diego County and provide installation of the products. To this point, liability concerns have limited the scope of the program and prevented product installation.

## Prevention Activities You Can Do

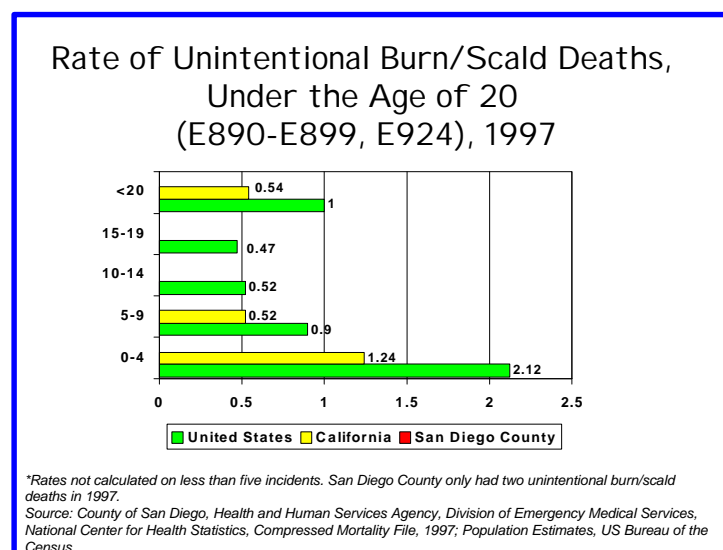
- ♥ Crawl through your house to see hidden dangers at your child's level. Your home can be a very dangerous place for your child with many temptations placed right at their eye level.
- ♥ Contact the San Diego Safety Council for an assessment of your home through the *HOME SAFE HOME* Program.

## Burn and Scald

Burn and scald injuries account for relatively few deaths nationally, statewide and in San Diego County. The rate of death from burns and scalds nationally is twice that of California. Nationally, burns from flames or fire are a more significant injury problem and occur primarily during the winter months. The majority of these burns are due to house fires from unsafe heating systems or the use of inappropriate materials for heat. Additionally, smoking contributes significantly to burn injuries. Burn and scald deaths disproportionately affect younger children. Firefighters are currently seeing increases in fires due to unattended burning candles. The recent popularity of scented candles comes with additional risk.

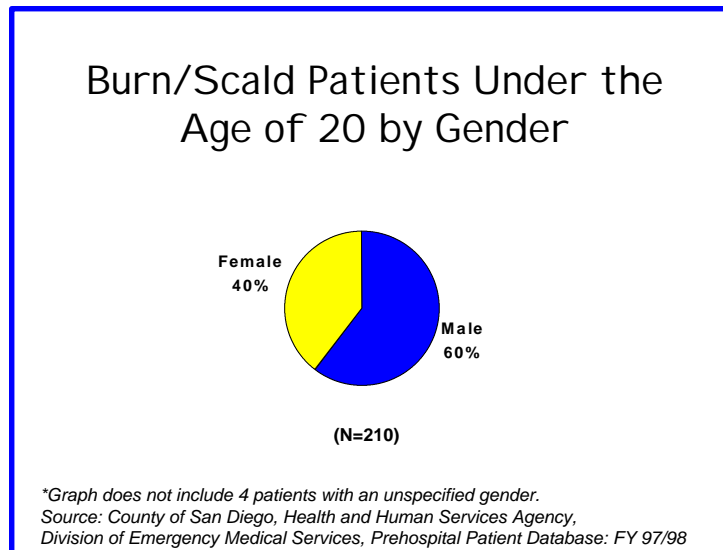
In California both a more temperate climate and lower prevalence of smoking contribute to the lower rate of burn fatalities. In San Diego County there were too few deaths due to burns and scalds to calculate rates for any age group or for the entire population of children under age twenty. Scald injuries were more prevalent in San Diego County than fire or flame related burns.

By their very nature, scalds are not usually fatal. The majority of scalds to very young children seen in San Diego County are due to hot liquids and foods not on a cooking surface. In other words, these scalds affect toddlers who grab or reach for the hot item either from the table or counter or from the caretaker's hand. The increase in popularity of hot beverages

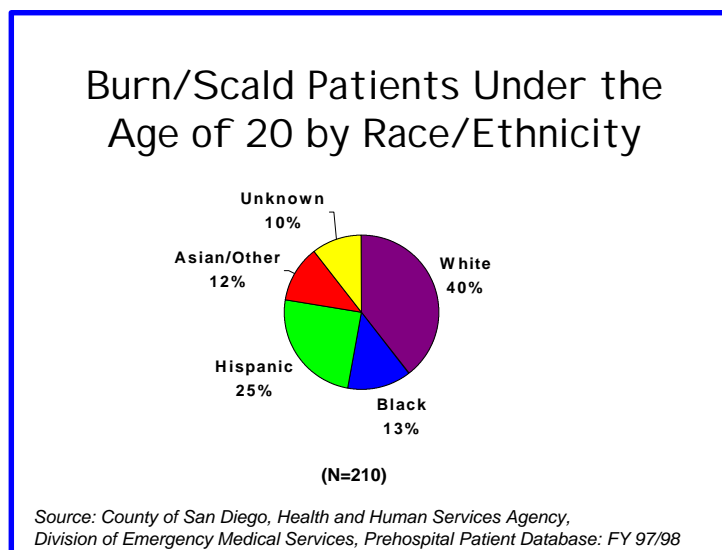


such as specialty coffees means that care must be taken to prevent increases in scald injuries to very young children.

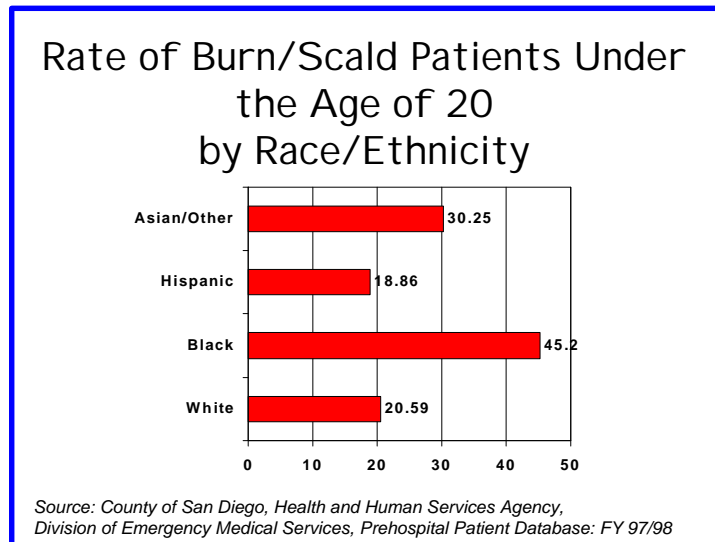
## Paramedic/EMT-1 Patients



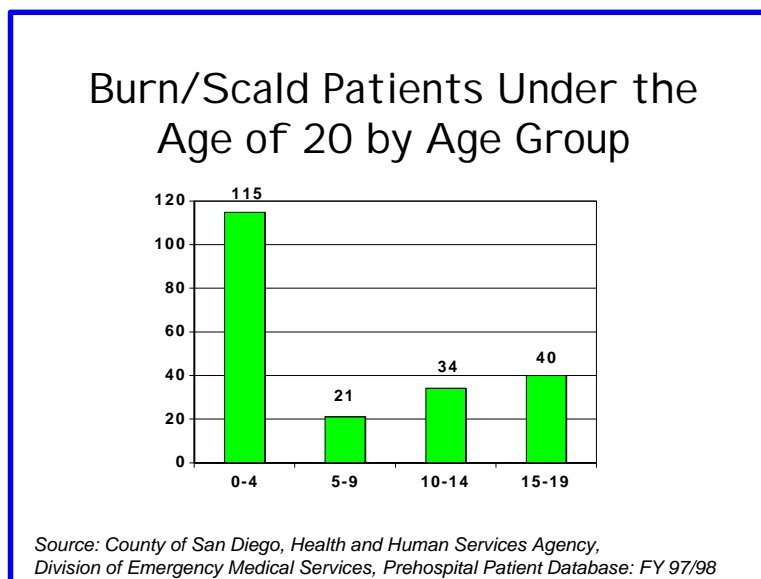
There were a total of 210 burn/scald patients under age twenty seen by Paramedics and EMT-1's. Sixty percent of these patients were male.



The majority of burn/scald patients were White (40%) or Hispanic (25%). Black (13%) and Asian/Other (12%) children had similar numbers of burn/scald injuries. Race/ethnicity was not identified in ten percent of patients.

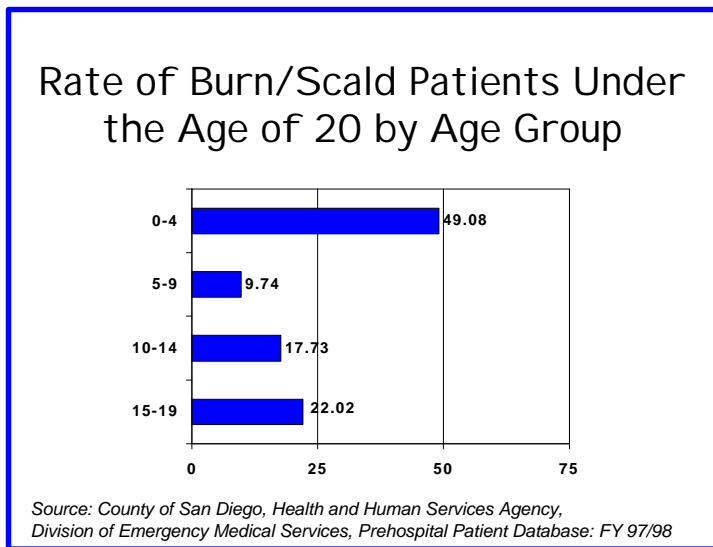


However Black children had more than double the risk of burn/scald injuries as White or Hispanic children, 45.2 per 100,000 compared to 20.89 and 18.86 per 100,000 respectively. Black children were also significantly more likely than Asian/Other (30.25 per 100,000) children to suffer burn/scald injuries.

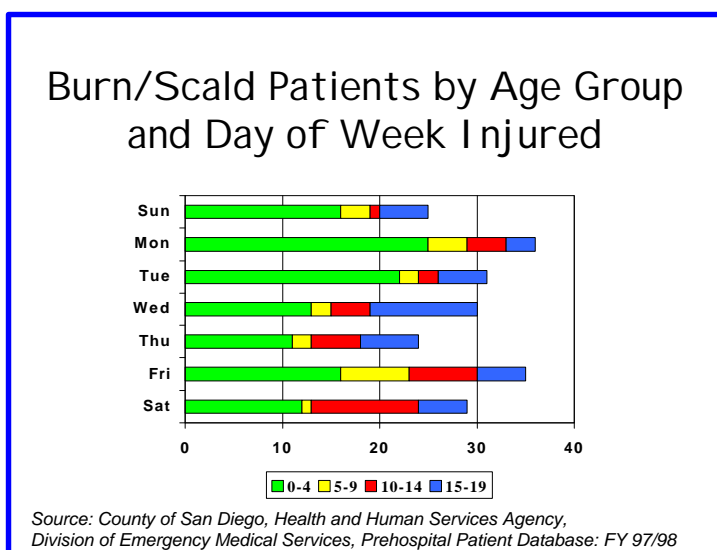




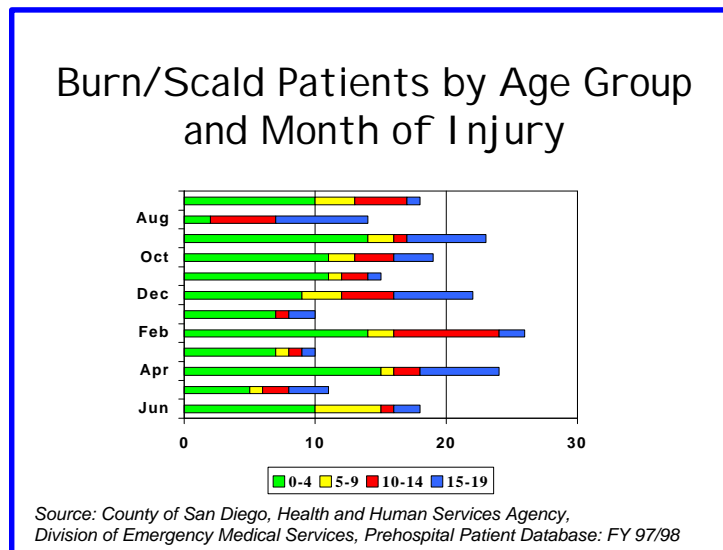
Burn/scald injuries overwhelmingly affected children under age five. Fifty-five percent of all burn/scald injuries to children occurred in this youngest age group. As expected, the children under age five also had the highest rate or risk of scald/burn injury at 49.06 per 100,000. This was more than twice that of 15-19 year olds who had a rate of 22.02 per 100,000. The age group with the lowest risk was the 5-9 year olds with a rate of 9.74 per 100,000.



Overall, most scalds/burns occurred on Monday and Friday, rather than on the weekend. By age group, the youngest children were more likely to be injured on Monday or Tuesday. The 10-14 year olds were more likely to be injured on Saturday. This was the only age group that was more likely to be injured on Saturday. Among the 15-19 year olds, twice as many were injured on Wednesday as any other day.



The 5-9 year olds were more likely to be injured in June than any other month. The 10-14 year olds were more likely to be injured in February. Among the 15-19 year olds, burn/scald injuries were clustered in the Fall through December and in April.

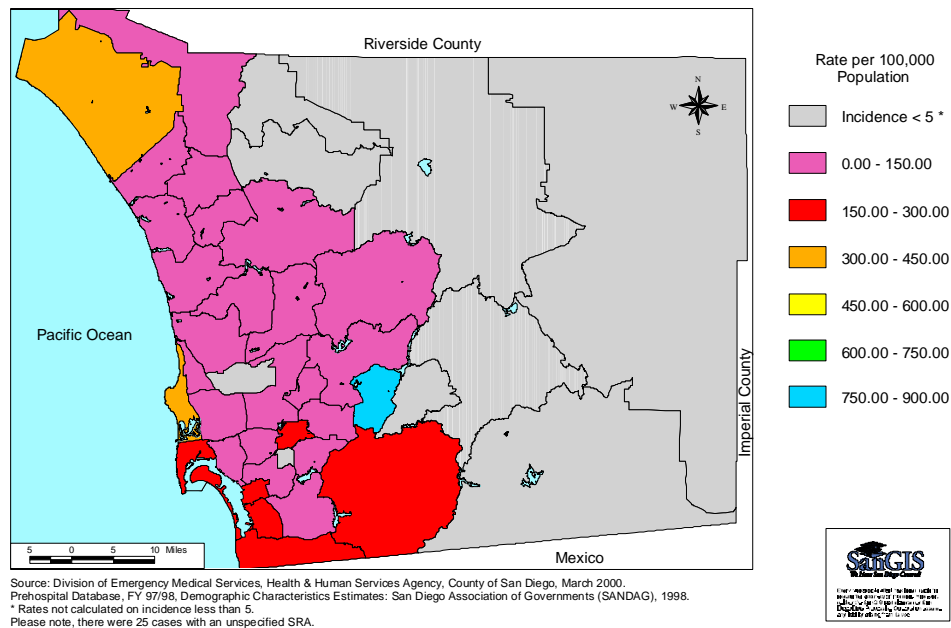


Half of all burn/scald patients were injured in private homes and half of those were under the age of five. Not surprisingly, a private home was the most common setting for burn/scald injuries for all age groups. A significant number of children, especially in the 0-4 year old age group, were transported to emergency departments by paramedics or EMT-1's from medical facilities such as physician offices, clinics and urgent care centers. Only two of the burn/scald patients were transported from industrial locations and these were both 15-19 year olds.

Paramedic/EMT Burn/Scald Patients Under the Age of 20					
	0-4	5-9	10-14	15-19	Total
Home	62	10	23	22	117
Street Highway	3	2	2	1	8
Public Bldg	9	2	2	4	17
Industry	0	0	0	2	2
School	0	2	0	0	2
Rec Pblc Area	2	1	3	5	11
Med Facility	26	3	3	4	36
Other	10	1	1	2	14
Missing	3	0	0	0	3
<b>Total</b>	<b>115</b>	<b>21</b>	<b>34</b>	<b>40</b>	<b>210</b>

Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Data, Fiscal Year 97/98

Paramedic/EMT Burn Patients  
Under the Age of 20 by Sub-Regional Area



## Local EMS Research

**Research Objective:** Upon investigation of the San Diego County prehospital data, it was found that 2-3% of children seen by paramedics/EMT each year suffered fire/burn injuries. Less than 15% of these burns were due to flame/fire, the remaining were due to scalds/hot object. The high numbers of scalds/hot object injuries prompted further investigation. This study aimed to identify trends in cause of injury and to examine existing and possible prevention techniques.

**Principal Findings:** Of 121 valid cases in which a chief complaint of "burn" was documented, 87% (105/121) were scald injuries. Of these scald injuries 36% were hot beverage/food related, 26% were other cooking related, 10% electrical; 9% bath/shower water; 9% iron/hot item, 3% chemical, 2% radiator/exhaust, 1% asphalt, 1% explosion, and 3% unknown. The majority of the victims were male (63%), 1 year old (12 to 23 months) (40%), and White (32%) or Hispanic (24%). Seventy-nine percent of the incidents occurred at home, with 77% of the outcomes resulting in EMS transport to a hospital. Thirty-six percent of these scald cases involved the child pulling/grabbing hot beverage/food.

**Conclusions:** This data underscored the hazards scalds pose to young children especially in the home environment. Since 36% of these scald cases involved children pulling/grabbing, information regarding safety hazards posed by parents/caregivers handling hot items in the presence of young children should be addressed.

**Implications:** As shown by this study, scalds to young children tend to be a seriously overlooked but preventable hazard. Past parental education efforts on safe hot bath/tap water temperatures, safe stovetop and oven cooking practices, and microwave-heated food safety have increased knowledge and reduced the number of scalds and burns to young children. However, scalds caused by hazards (coffee, etc) and children's behavior (reaching for items on tabletops and counters) must now be addressed. Prevention of these injuries would eliminate one third of scald injuries to children.

## **San Diego Safe Kids Coalition Prevention Activities**

The San Diego Safe Kids Coalition partnered with The Burn Institute to seek legislation that would ban the sale of lighters and matches to children. Initially, the San Diego County Board of Supervisors was contacted in efforts to secure a local ordinance that would serve as a model for other counties. Through the efforts of Safe Kids Coalition member, Johnson and Johnson State Governmental Affairs Office, the proposal was brought to the attention of several legislators at the State level. The legislators were interested in this idea and promised to consider authoring the legislation in the next session. The legislative proposal is supported by the California State Firefighter's Association, the San Diego County Fire Chiefs Association and numerous other fire safety organizations. The Safe Kids Coalition will be actively pursuing an author for the next legislative session.

With the help of Coalition partner, Ninth District PTA, educational information concerning the need for a home fire escape plan was distributed throughout San Diego County through individual PTA's and District newsletter articles. In addition to the fire escape plans, the Safe Kids Coalition provided batteries to attendees of the various health and safety fairs conducted in the months of October (Fire Safety Month) and April. These batteries were distributed with instructions for the recipient to change the battery in their smoke detector when they changed their clocks for daylight savings time.

To help avoid scalds, the Safe Kids Coalition again partnered with The Burn Institute to provide Bath Water Temperature Indicators to parents so they could safely determine safe water temperatures. Additional anti burn and scald information was distributed at the San Diego Home and Garden Show.

Safe Kids Coalition members, Rancho Elementary School students, created a display for the San Diego Home and Garden Show that demonstrated safe behavior. The displays focused on burn and scald prevention in the kitchen, with illustrations depicting safe behavior.

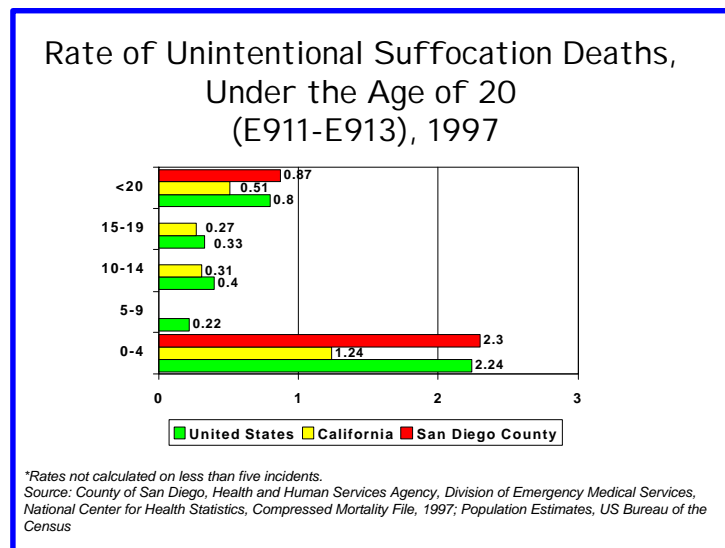
## Prevention Activities You Can Do

- ♥ Install a smoke detector on each level of your home, especially outside bedrooms.
- ♥ Replace the batteries in the smoke detector twice a year unless using a long life battery. A good time to replace the battery is when you change your clocks.
- ♥ Test your smoke detector each month. Waiting until you hear the warning is not the best prevention strategy. It could sound while you are away.
- ♥ Keep a current fire extinguisher in your kitchen, garage and any other area where a fire hazard may exist.
- ♥ Keep all lighters and matches up and out of the reach of children. This includes utility lighters that are commonly used to light barbecues and fireplaces.
- ♥ Never leave a candle burning unattended.
- ♥ Reduce the temperature on your hot water heater to 120.
- ♥ Teach your children to always turn the cold water on first and be sure to model that behavior.

## Suffocation/Airway Obstruction

For this report suffocation included unintentional choking, aspiration and asphyxiation. Food items such as hot dogs can get lodged in a child's throat and result in suffocation. The Consumer Products Safety Commission tests items intended for children for choking hazards. Toys are labeled with age appropriate warnings to identify potential hazards. However, items such as balloons, plastic bags, coins and window blinds can also pose suffocation hazards for small children.

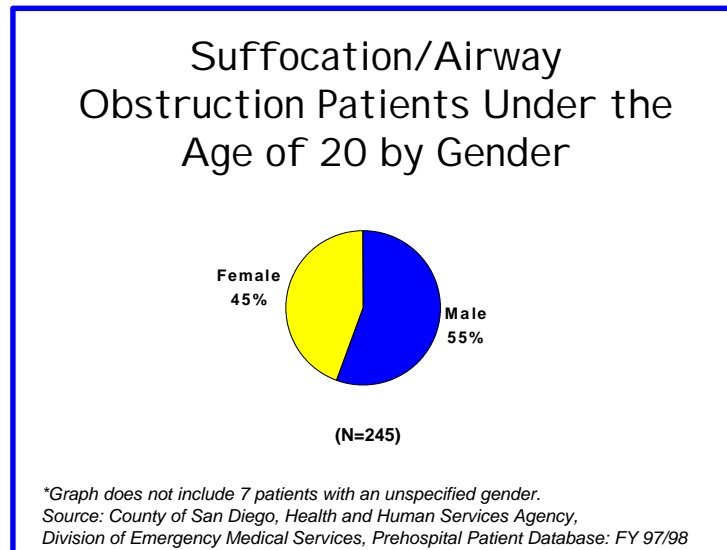
The rate of suffocation death is highest among 0-4 year olds. In San Diego, the rates of suffocation deaths among this youngest age group and among all children under age 20 are slightly higher than the national rates and significantly higher than the rates for California. There were too few suffocation deaths to calculate rates for specific age groups over age four in San Diego.



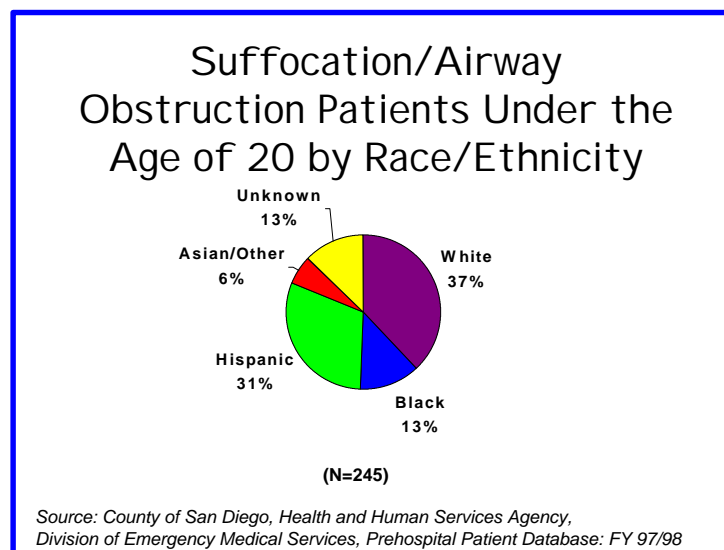
## Paramedic/EMT-1 Patients

There were 245 children under the age of 20 seen by Paramedics and EMT-1s in San Diego.

The majority (55%) were males.

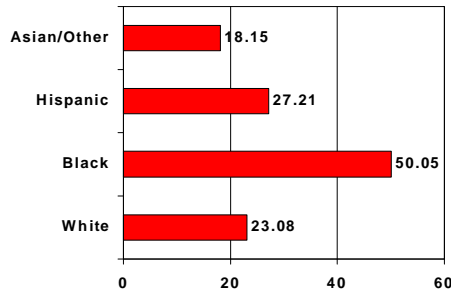


The majority of suffocation patients were White (37%) or Hispanic (31%). Black children accounted for 13% while Asian/Other were only 6% of patients. Race/ethnicity was unknown in 13%





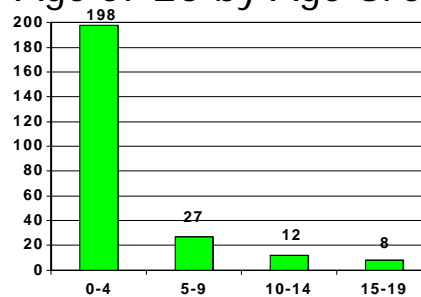
### Rate of Suffocation/Airway Obstruction Patients Under the Age of 20 by Race/Ethnicity



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

Black children had the greatest risk of suffering suffocation injuries at 50.05/100,000, almost double that of Hispanic children at 27.21/100,000. Whites were at slightly less risk 23.08/100,000. Asian/Others had the lowest risk of suffocation injuries at 16.15/100,000.

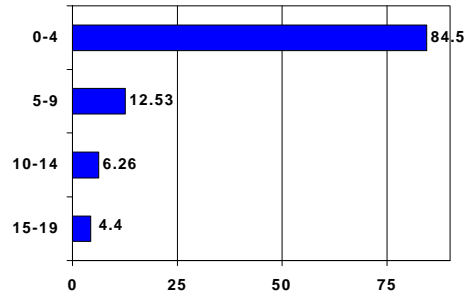
### Suffocation/Airway Obstruction Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

Eighty-one percent of suffocation patients were under age five. This age group also had the highest rate of suffocation injury at 84.5/100,000. That is almost 20 times the rate of 15-19 year olds. Suffocation injuries clearly affect the youngest age group disproportionately.

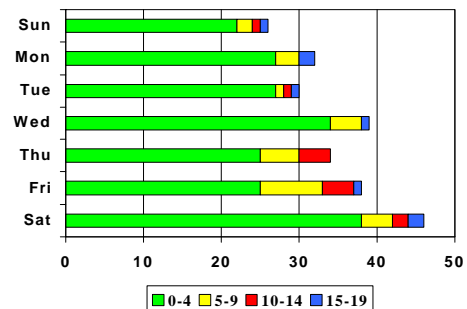
### Rate of Suffocation/Airway Obstruction Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

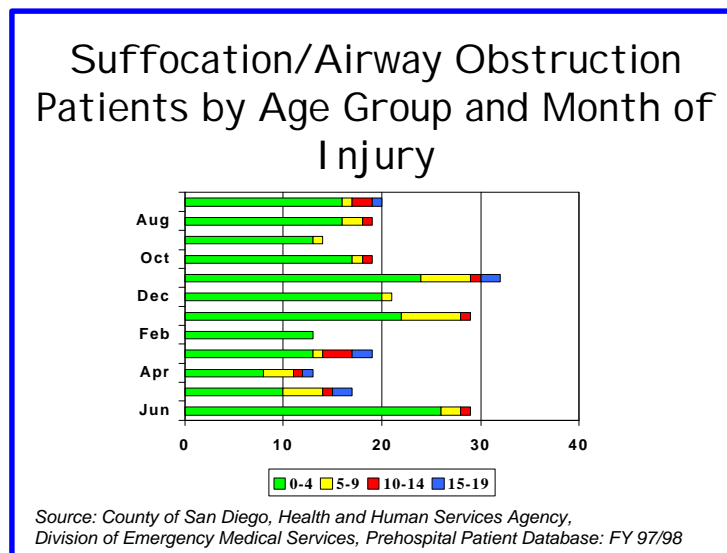
Overall, suffocation injuries were more likely to occur on Saturdays or Wednesdays.

### Suffocation/Airway Obstruction Patients by Age Group and Day of Week Injured



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

For all age groups, most suffocation injuries occurred during November and January. For 0-4 year olds, June also had a high number of incidents.

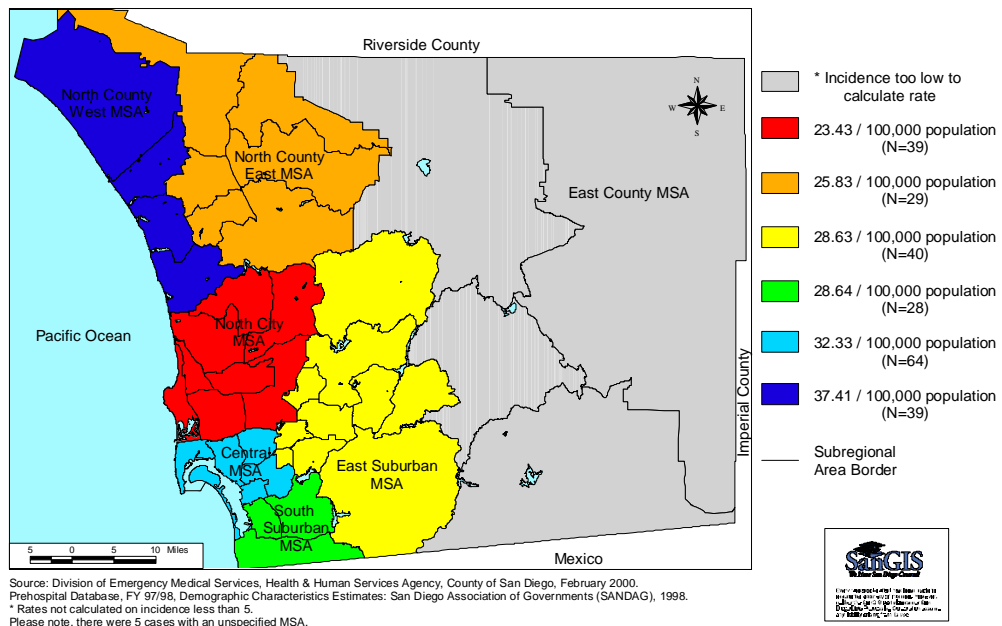


The overwhelming majority (79%) of suffocation injuries occurred at home.

Paramedic/EMT Airway Obstruction/Suffocation Patients Under the Age of 20					
	0-4	5-9	10-14	15-19	Total
<b>Home</b>	159	22	7	5	193
<b>Street Highway</b>	2	0	0	0	2
<b>Public Bldg</b>	11	2	1	0	14
<b>School</b>	1	0	0	0	1
<b>Rec Pblc Area</b>	0	2	0	0	2
<b>Med Facility</b>	17	1	3	2	23
<b>Other</b>	3	0	1	0	4
<b>Missing</b>	5	0	0	1	6
<b>Total</b>	<b>198</b>	<b>27</b>	<b>12</b>	<b>8</b>	<b>245</b>
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Data, Fiscal Year 97/98					

The highest rates of suffocation injuries occurred in North County West (32.33/100,000) and Central (32.33/100,000). The lowest rate of suffocation injuries occurred in North City (23.42/100,000).

Paramedic/EMT Suffocation/Airway Obstruction Patients  
Under the Age of 20 by Major Statistical Area



## **San Diego Safe Kids Coalition Prevention Activities**

With funding from Safe Kids Coalition partner, The La Jolla Golden Triangle Rotary Club, over 1,000 small parts test cylinders to test for potential choking hazards were distributed throughout San Diego County at various health fairs and community events. The Coalition distributed over 500 educational brochures on the importance of appropriate toy selection using developmental guidelines as the basis for toy selection.

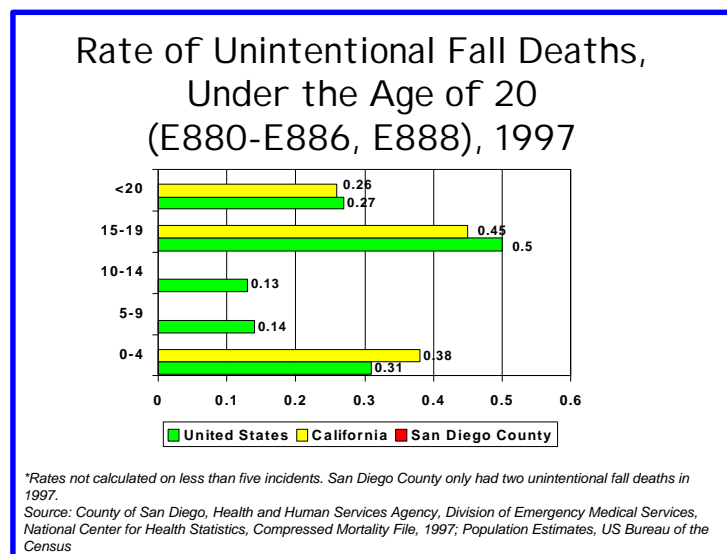
In response to the risk of strangulation in window blind cords for young children, the Safe Kids Coalition distributed over 500 cord shortening kits free of charge to parents in the county. The kit contained the hardware needed for eliminating the hazard for two types of window blinds.

## **Prevention Activities You Can Do**

- ♥ Check all toys for potential choking hazards such as loose parts or pieces that can be easily removed.
- ♥ Make sure that toys are age appropriate for the child
- ♥ Change all blind cords so that they no longer form a continuous loop
- ♥ When children of different ages are in the same area, monitor the items in the reach of small children. Objects appropriate for an 11 year old are usually not safe for a 2 year old.
- ♥ Keep plastic bags and balloons away from young children. Both can become lodged in the airway and cause suffocation
- ♥ Encourage children not to chew on objects such as pen caps and other non-edible products.
- ♥ Do not sleep with a young child in your bed. The Consumer Product Safety Administration has issued an alert with this advisement due the increasing number of young children suffocating in adult beds as the result of being crushed by another individual, becoming entangled in the bedding or being wedged between the bed and the wall. Children who are suffocating may not be able to make audible sounds of distress.
- ♥ Be sure food is appropriate for the child's age and development. Check with your pediatrician for recommendations on when to introduce specific foods to your child.
- ♥ When in doubt, err on the safe side!

## Unintentional Falls

Unintentional falls rival motor vehicle occupant crashes as a leading cause of unintentional death and injury among children. Falls accounted for 8% of all injury deaths in the United States, and were the second leading cause of deaths after motor vehicles in 1995. The nonfatal injury rate was higher than for any other single type of injury. While older people were more likely to die from a fall, children were more likely to be injured. Researchers have estimated that one in ten children aged 1-3 visited an emergency room for treatment for injuries sustained in a fall. Many of these injuries could have been prevented through the use of safety gates, window guards and door locks.



There were not a sufficient number of fall related deaths to children under age 20 in San Diego County to calculate comparison rates. Overall the rate of fall deaths to children under age 20 was slightly below the national rate. However, the rate of fall deaths for 0-4 year olds was higher than the national rate (0.38/100,000 compared to 0.31/100,000). By age group, 15-19 years olds were at greatest risk of fall related death.

## Eriq's Story

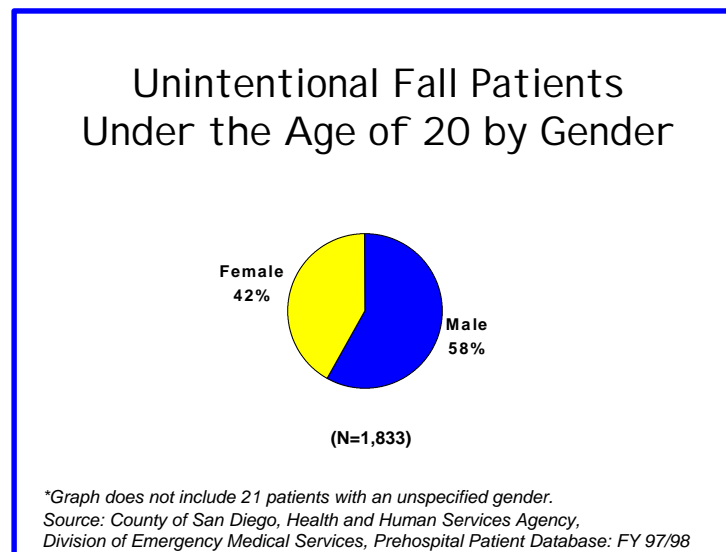
"Eriq, move away from the window." Those were the last words LaTashia Manson Fuller remembers saying before she looked up again to see her two year old son, Eriq, slide out of the second story window and disappear. How had this

happened? She was right there, not more than 6 feet away and now... she didn't even want to think about what may have happened to her baby.

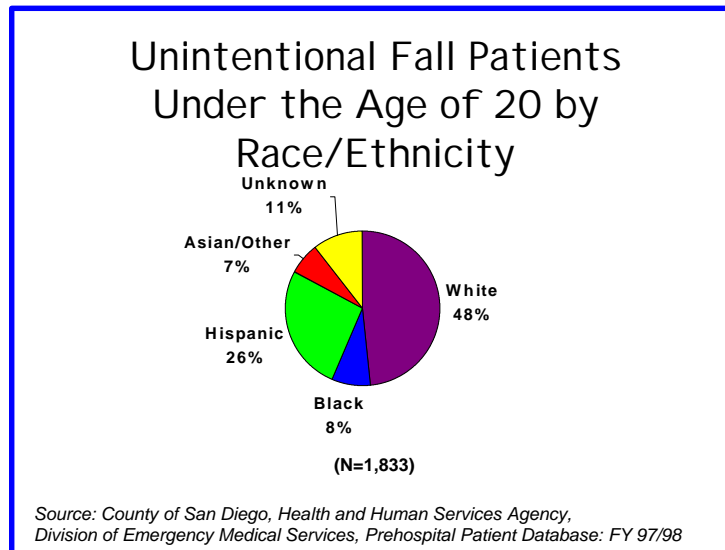
She ran to the window and looked down to see Eriq sprawled out – but on a ledge about 4 feet directly below the window. His fall was stopped by a small portion of concrete jutting out of the wall. Had it not been there, Eriq would have landed 15 feet below. Eriq was fortunate that the ledge was under the window he fell through. He only sustained minor cuts and scrapes from his fall. His parents realize just how fortunate Eriq and their family was. They made a commitment to help prevent others from experiencing this type of terror. That commitment lead them to become involved in the San Diego Safe Kids Coalition.

### Paramedic/EMT-1 Patients

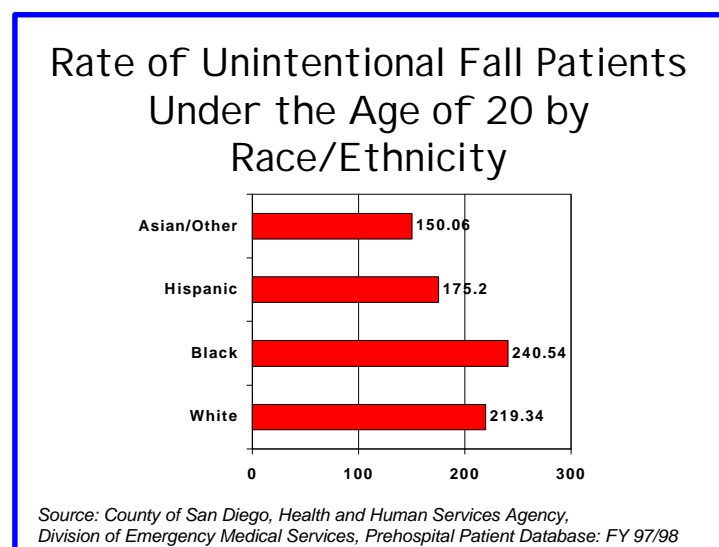
There were a total of 1,833 children under the age of 20 seen by Paramedics and EMT-1s in San Diego. The majority (58%) of those seen were male.



The majority of unintentional fall patients under the age of 20 were White (48%) or Hispanic (26%). Black children accounted for 13% of patients while Asian/Other accounted for only 7% of patients. Race/Ethnicity was unknown for 11% of patients.



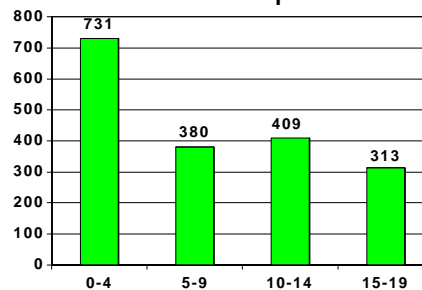
Black children had the greatest risk of suffering an unintentional fall with a rate of 240.54/100,000. White children had the second highest rate, 219.34/100,000, followed by Hispanic children at 175.20/100,000. Asian/Other children had the lowest risk of unintentional falls with a rate of 150.06/100,000.





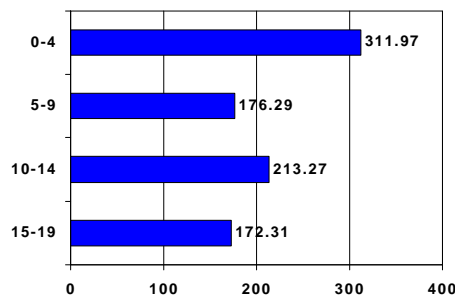
Forty percent of unintentional fall patients were under age five. This group also had the highest rate of unintentional falls at 311.97/100,000. The rate for this age group is significantly higher than the rate for all other age groups. The second highest rate for unintentional falls occurred in children ages 10-14 at 213.27/100,000.

### Unintentional Fall Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

### Rate of Unintentional Fall Patients Under the Age of 20 by Age Group

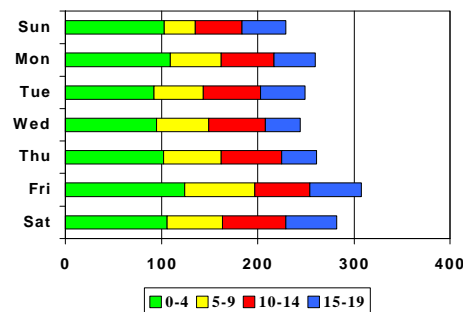


Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

As a whole, unintentional falls were more likely to occur on Fridays or Saturdays.

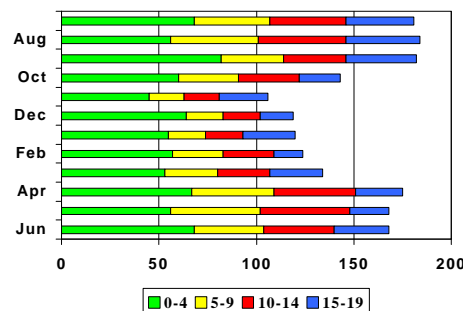
Unintentional falls to children under the age of 20 are seasonal in nature. Fall injuries increase in April and continue to be high through September. Falls occurred most frequently in the months of July, August, and September.

### Unintentional Fall Patients by Age Group and Day of Week Injured



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

### Injuries due to Unintentional Falls Patients by Age Group and Month of Injury

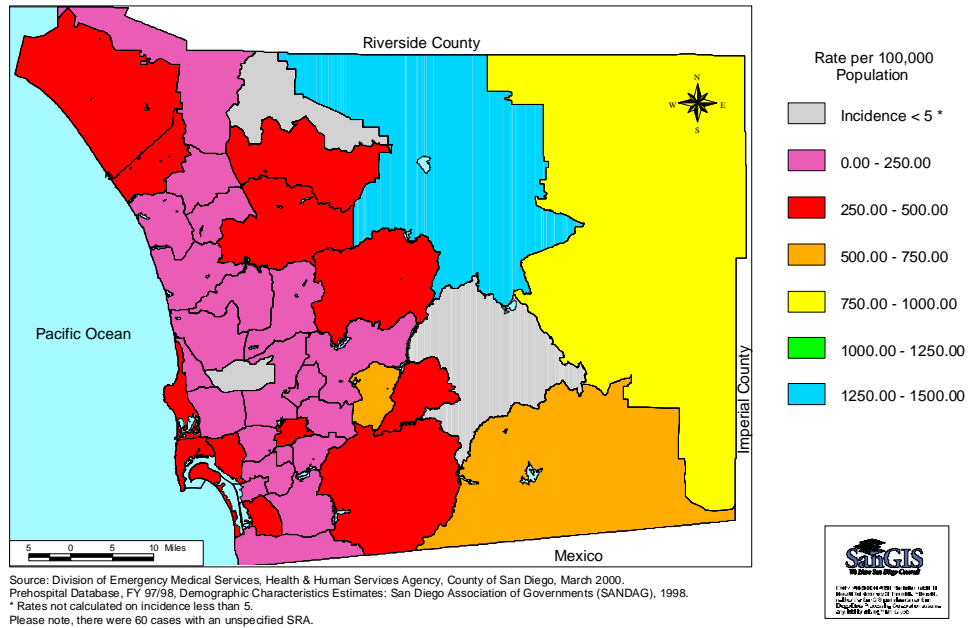


Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

Most unintentional falls for patients under the age of 20 occurred at home (46%). One fourth of fall injuries occurred at school.

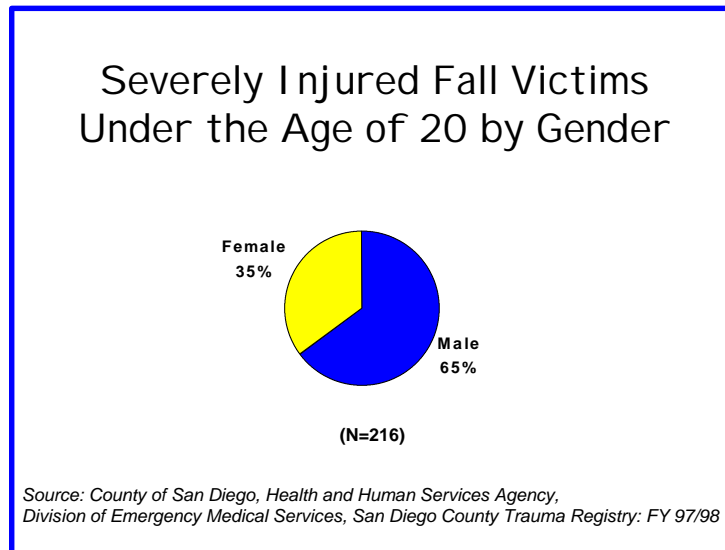
Paramedic/EMT Unintentional Fall Patients Under the Age of 20					
	<b>0-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>Total</b>
<b>Unknown</b>	0	1	0	0	1
<b>Home</b>	508	158	114	60	840
<b>Street Highway</b>	41	25	37	46	149
<b>Public Bldg</b>	64	32	44	37	177
<b>Industry</b>	9	1	2	4	16
<b>School</b>	12	77	83	34	206
<b>Rec Pblc Area</b>	25	33	63	52	173
<b>Med Facility</b>	28	22	27	21	98
<b>Other</b>	33	27	36	51	147
<b>Missing</b>	11	4	3	8	26
<b>Total</b>	<b>731</b>	<b>380</b>	<b>409</b>	<b>313</b>	<b>1833</b>
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Data, Fiscal Year 97/98					

Paramedic/EMT Fall Patients  
Under the Age of 20 by Sub-Regional Area

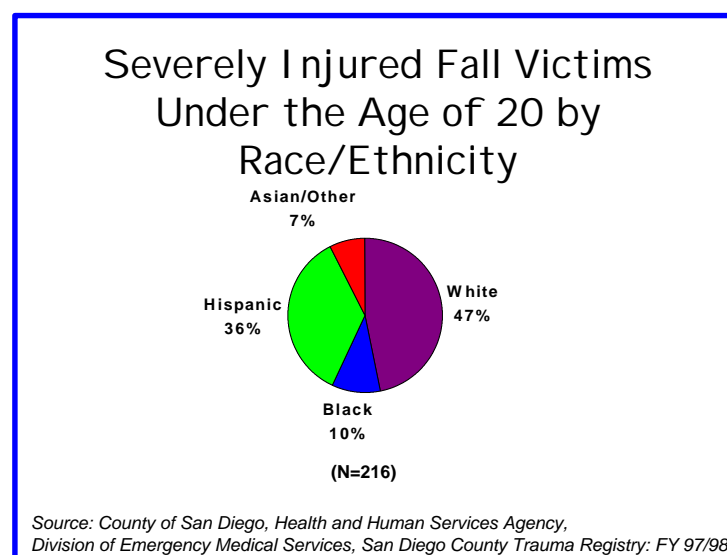


## Trauma Registry Patients

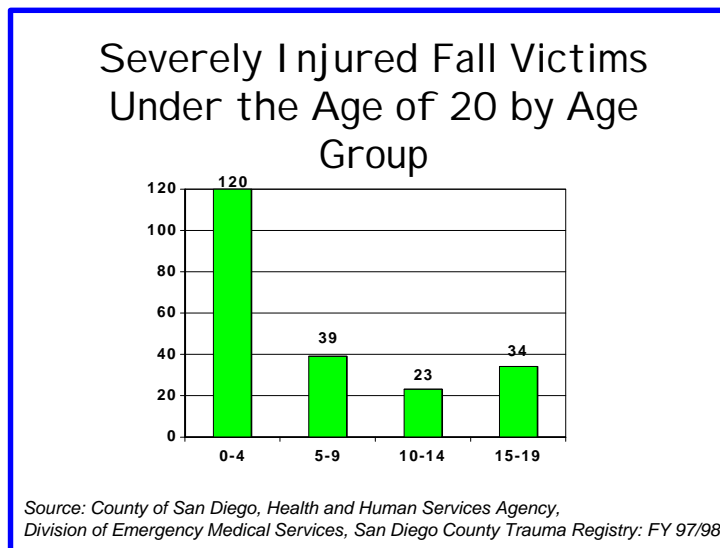
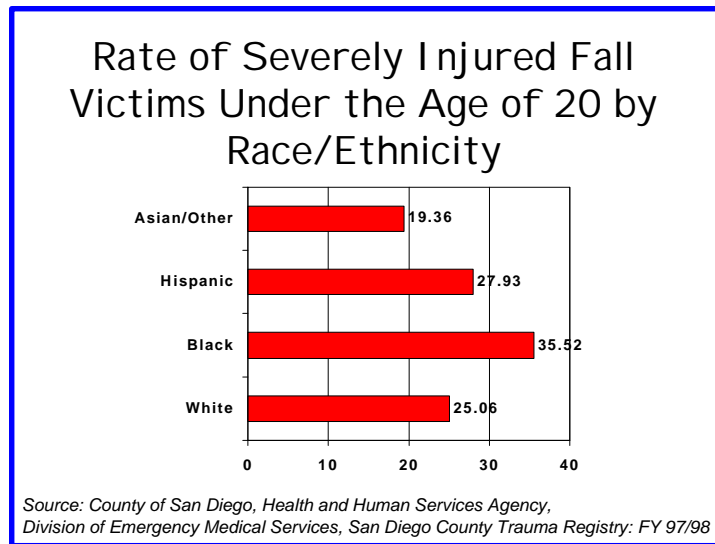
There were 216 severely injured fall victims under the age of 20. Males were the majority (65%).



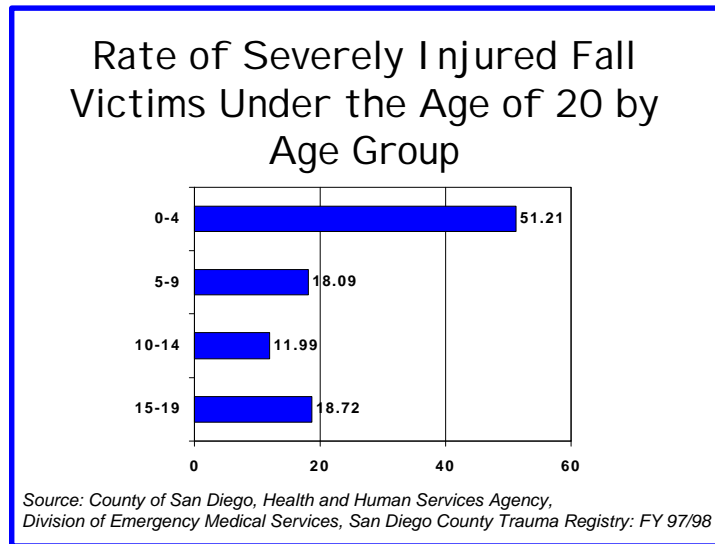
The majority of severely injured fall victims under the age of 20 were White (47%) and Hispanic (36%). Black children accounted for 10% of severely injured patients followed by Asian/Other children (7%).



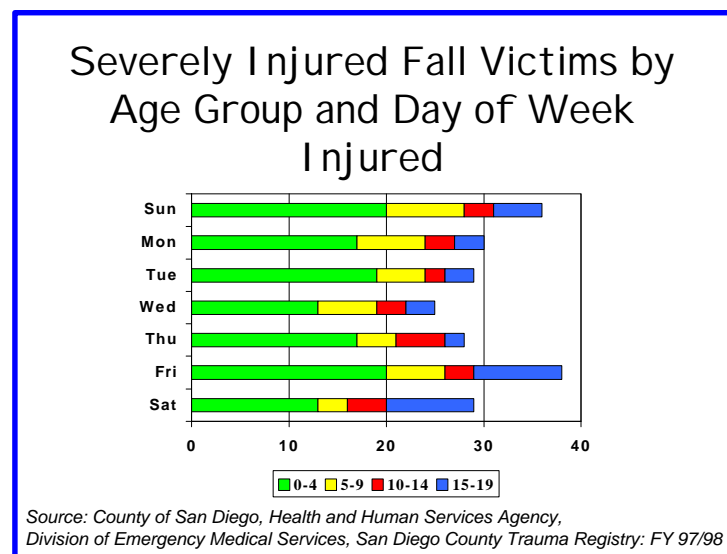
Black children had the greatest risk of being a severely injured fall victim with a rate of 35.52/100,000. This risk is significantly higher than the rate of Hispanic children at 27.93/100,000, and White children at 25.06/100,000. Asian/Other children had the lowest rate at 19.36/100,000.



Fifty six percent of severely injured fall victims were under the age of five. This age group also had the highest rate of severe injury at 51.21/100,000, almost 3 times the rate 15-19 year olds.

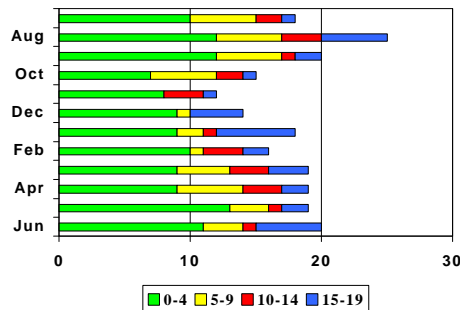


Overall, severe injuries from falls in victims under the age of 20 were most likely to occur on Fridays or Sundays.



By month, severe injuries from falls were most likely to occur in August, September, or June.

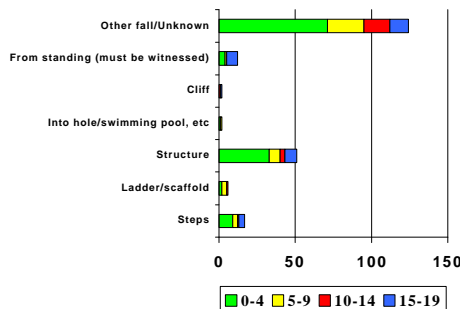
### Severely Injured Fall Victims by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

When known, the most common mechanism of severe injury in victims under 20 were falls from structures and falls from steps/stairs.

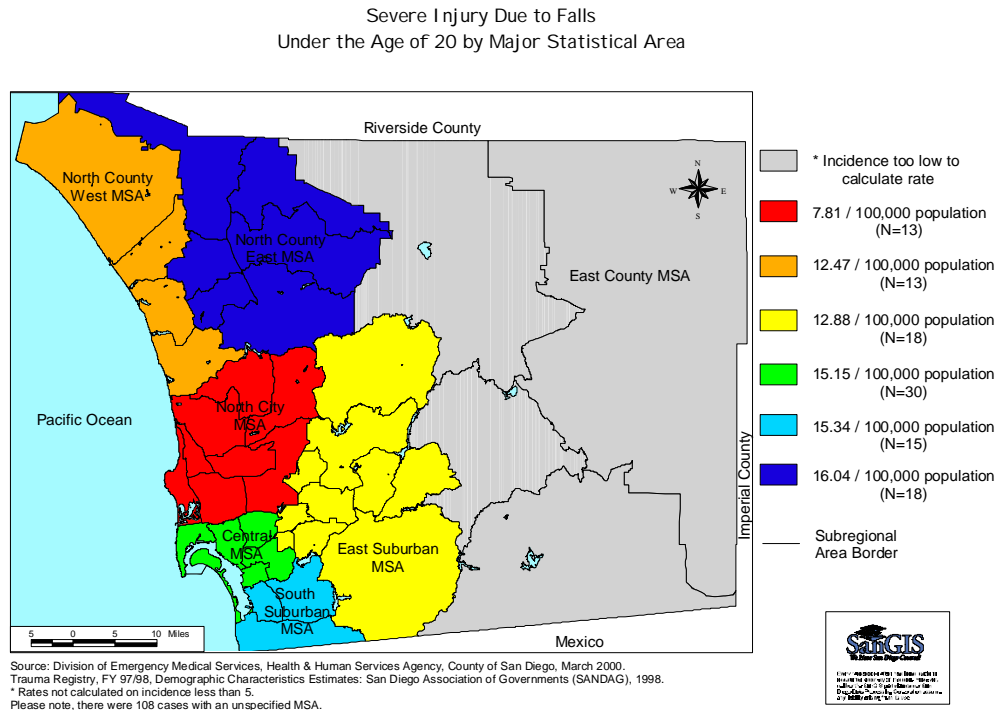
### Severely Injured Fall Victims by Age Group and Mechanism



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98



Geographically, North City had a significantly lower rate of severe injury due to falls than any other region of the County. This area's rate of 7.81/100,000 was approximately half that of other areas of the county even though this is a coastal area known for cliff rescues.



## Local EMS Research

**Background:** Falls accounted for 8% of all injury deaths in the United States, and were the second leading cause of deaths after motor vehicles in 1995. The nonfatal injury rate was higher than for any other single type of injury (Christoffel and Gallagher, 1999). While older people were more likely to die from a fall, children were more likely to be injured. It was estimated that one in ten children aged 1-3 visited an emergency room for treatment for injuries sustained in a fall, the highest incidence occurred at one year of age (Baker et. al. 1992). Many of these injuries could have been prevented.

In San Diego County injury was the leading cause of death among individuals under the age of 15. Falls were the leading cause of severe injury/death among children under the age of 15, followed by motor vehicle occupant and pedestrians struck. This paper will present the current status of injury and death among San Diego County youths due to falls.

San Diego Emergency Medical Services has been collecting Trauma Registry Data since August 1984. Currently there are five adult Trauma Centers and one pediatric center. There were 1,230 injuries and 1 death attributed to falls during fiscal years 91/92 through 97/98 to individuals under the age of 15.

**Results:** Children under the age of five were at greatest risk of a severe injury due to a fall (62%). The majority of falls fit into the fall other/unknown category (56%, 685/1231). Since no specifics are known about these falls they are excluded from the following discussion.

Of those falls where the circumstance was known:

- ♥ Children under the age of five were most likely to fall from a structure (31% of falls in this age group), followed by a fall from steps (11%).
- ♥ Children aged 5 to 9, were most likely to fall from a structure (20%) or from a ladder/scaffold (11%) than other type of fall.
- ♥ Children aged 10 to 14, were most likely to fall from a structure (19%) or from steps (7%) than other type of fall.

**Conclusions:** The data shows that while the incidence of falls has gone up and down during the last seven years, there was a mean of 176 victims a year (range 147 to 212). Males were more likely than females to be severely injured due to a

fall (64%, N=788). Children under the age of five were at greatest risk of a severe injury due to a fall (62%) with a rate of 46.86/100,000 population per year (N=757). The racial/ethnic group with the highest risk was Blacks (34.63 N=112), followed by Hispanics and Whites (34.22, N=466 and 26.40, N=563 respectively). It was interesting to note that children in all three age groups were most likely to fall from a structure or steps but that those aged 5-9 were more likely to fall from a ladder or scaffold than the other age groups. Among children the majority of falls occur at home (Baker et. al. 1992). Therefore prevention activities should begin at home. Installing window guards on second story (or higher) windows, gates in stairways, energy absorbing surface materials in playgrounds, and advising parents of common household dangers could help prevent many of these injuries.

### **San Diego Safe Kids Coalition Prevention Activities**

The Coalition has been actively involved in developing a window fall program that will target areas within the county with the highest incident rates. This effort is being spearheaded by Safe Kids Coalition member, La Tashia Manson as the result of a window fall involving her son (see Eriq's story). A grant to provide window falls education and window guards was awarded to the Coalition by the National Safe Kids Campaign and Anderson Windows.

In addition to working on window fall prevention, educational information concerning the risks of using baby walkers and how to use safety gates to block access to stairways is included in the information packets distributed at the numerous events in which the Safe Kids Coalition participates.

### **Prevention Activities You Can Do**

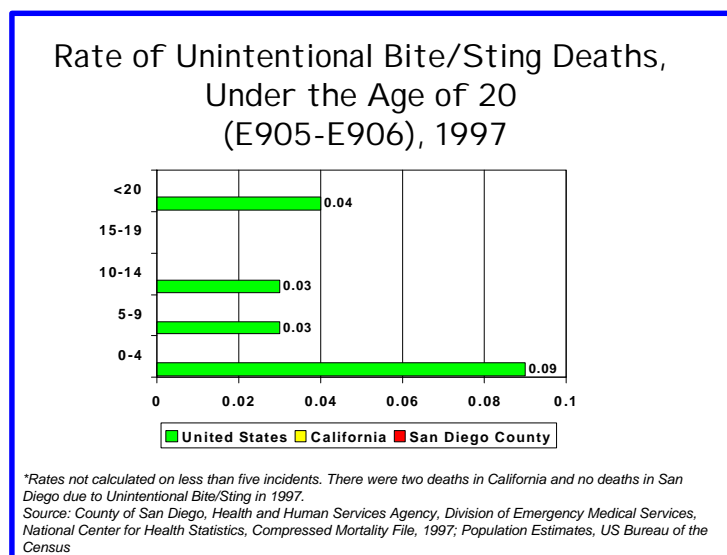
- ♥ Never use a baby walker. Stationary devices such as "Exersaucers" are safe to use within the height and weight restrictions for the specific product.
- ♥ Install window guards or locks on all windows on second story and higher structures.
- ♥ Never place furniture in front of a window. Children will climb or bounce on the furniture and could possible fall out of the window
- ♥ Use safety gates to prevent children from gaining access to dangerous areas such as stairs.

- ♥ Never leave a child unattended on surface such as a changing table, bed or piece of furniture. Parents frequently discover that their child has reached a new developmental level as the result of sustaining an injury.

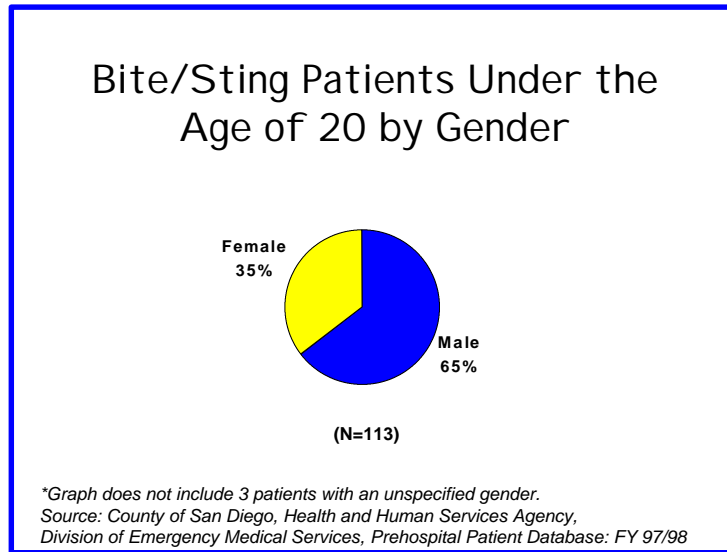
## Bite/Sting

Bite and sting injuries are not a significant cause of unintentional injury death to children. There were not a sufficient number of bite/sting related deaths to children under age 20 in San Diego County or in California to calculate comparison rates. Nationally children under age five are at greatest risk of fatal bite/sting injuries, however the rate is very small 0.09/100,000. Non fatal bite and sting injuries are a greater risk for children.

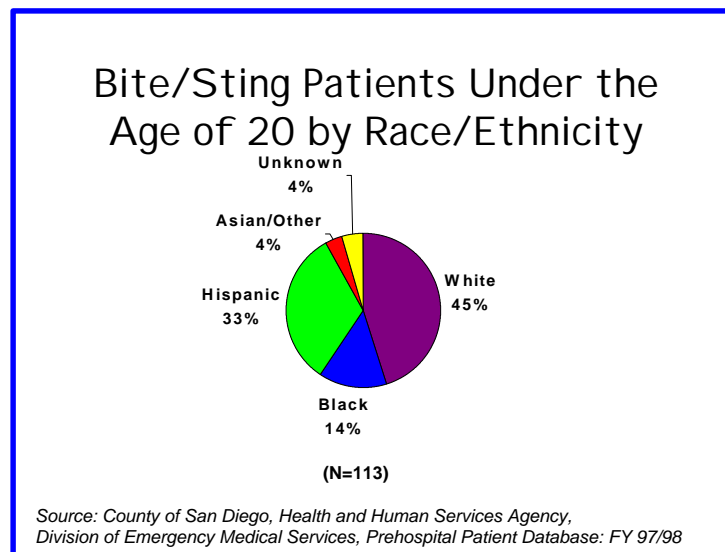
Between Killer Bees and Pit Bull attacks, the potential dangers of bite and sting injuries have been in the news disproportionately to their impact on children. A child is much more likely to be injured or killed in a motor vehicle crash, especially if unrestrained, than to be bitten or stung by an animal, insect, spider, reptile or fish.



## Paramedic/EMT-1 Patients

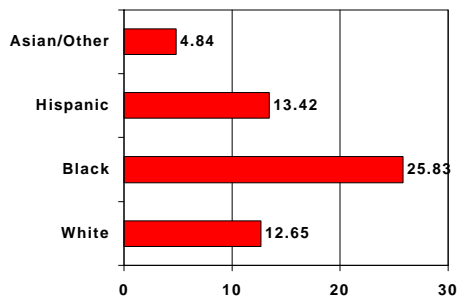


There were 113 children under the age of 20 seen by Paramedics and EMT-1s in San Diego. The majority (65%) were males.



The majority of bite/sting patients were White (45%) or Hispanic (33%). Black children accounted for 14% while Asian/Other were only 4% of patients. Race/Ethnicity was unknown in 4% of patients.

### Rate of Bite/Sting Patients Under the Age of 20 by Race/Ethnicity

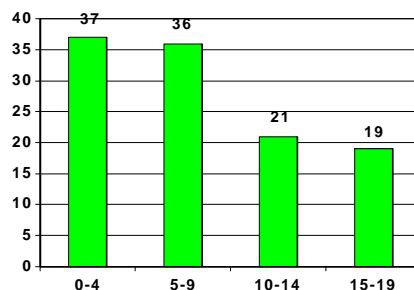


Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

Black children had the highest rate of bite/sting injuries at 25.83/100,000, almost double that of Hispanics and Whites and six times that of Asian/Others. Hispanics were at less risk at 13.42/100,000, followed by Whites at 12.65/100,000. Asian/Other children were at least risk at 4.84/100,000.

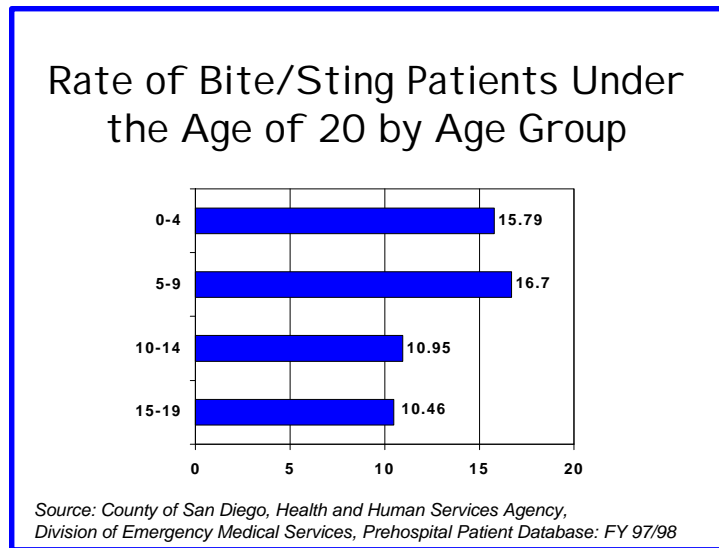
Children under 5 accounted for 33% of patients closely followed by 5-9 year olds at 32%. These were almost double the number of injuries in 10-14 and 15-19 year olds.

### Bite/Sting Patients Under the Age of 20 by Age Group

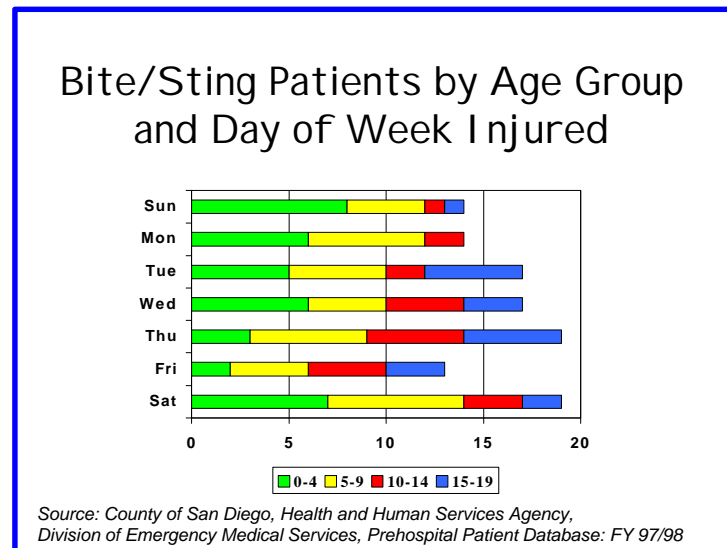


Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

The rate of bite/sting patients under 20 was highest for children in the 5-9 age group at 16.7/100,000 followed closely by the 0-4 age group at 15.79/100,000. These rates were about one and a half times higher than the age groups of 10-14 (10.95/100,000) and 15-19 (10.46/100,000).

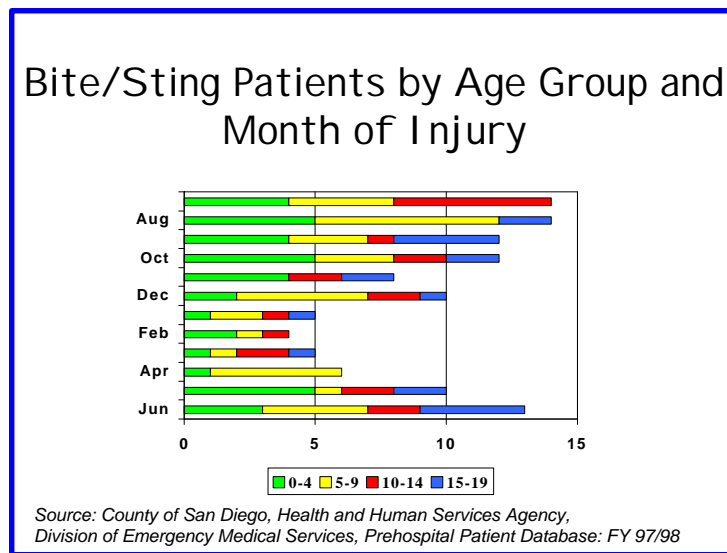


Overall, children under the age of 20 were more likely to suffer bite/sting injuries on Thursdays and Saturdays. However, by age group two distinct patterns emerged. The youngest children were more likely to be injured on weekends while the oldest children were more likely to be injured during the week.





In addition, there were more bite/sting patients during the months of July and August, followed closely by June.

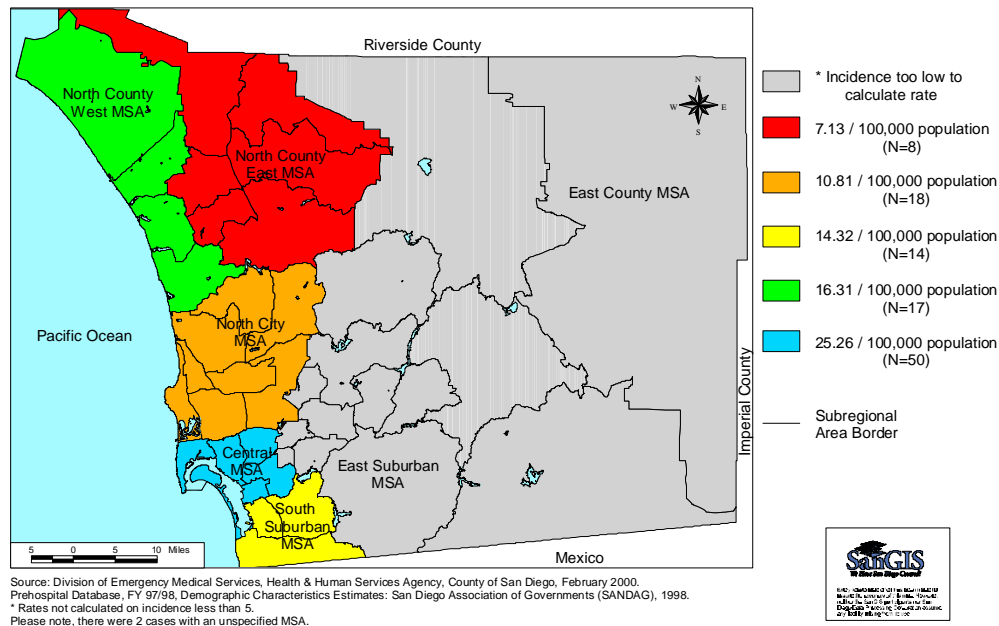


The largest number of bite/sting injuries for all age groups under 20 occurred at home.

Paramedic/EMT Bite/Sting Patients Under the Age of 20					
	0-4	5-9	10-14	15-19	Total
Home	24	30	15	5	74
Street Highway	2	2	2	4	10
Public Bldg	1	1	0	1	3
School	1	0	0	0	1
Rec Pblc Area	1	2	2	4	9
Med Facility	3	1	0	2	6
Other	4	0	1	3	8
Missing	1	0	1	0	2
<b>Total</b>	<b>37</b>	<b>36</b>	<b>21</b>	<b>19</b>	<b>113</b>

Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Data, Fiscal Year 97/98

Paramedic/EMT Bite/Sting Patients  
Under the Age of 20 by Major Statistical Area



## San Diego Safe Kid Coalition Prevention Activities

The Safe Kids Coalition currently does not have any activities in this injury area. It is being included because it must be regarded in the entire unintentional injury picture. The Home (Indoor) Injury task force is looking at the increasing concern over dog bites as a potential action area.

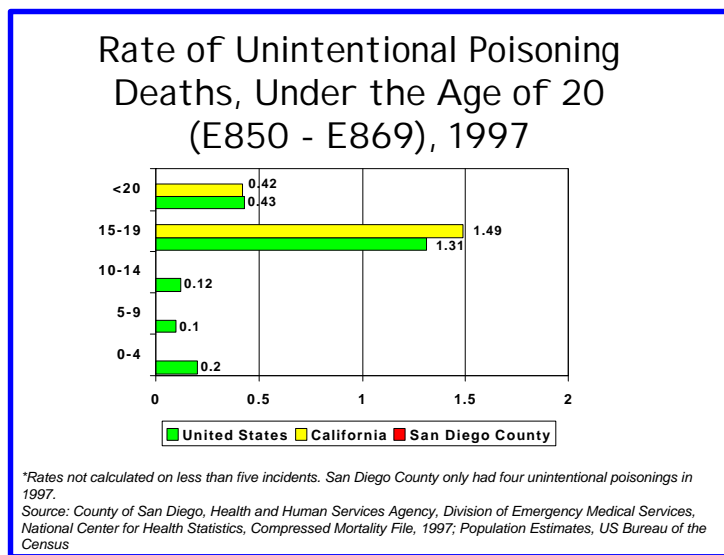
## Prevention Activities You Can Do

- ♥ Teach your children to avoid strange or unfamiliar animals and to assume that they are dangerous.
- ♥ Always ask the owner's permission before petting a dog or other animal.
- ♥ Teach your children to respect animals. Most animals will not attack unless provoked and even teasing a family pet can have unintended consequences.

- ♥ Inspect your home and yard for signs of bee or wasp habitation. If you discover a hive or nest, leave it alone and call a professional exterminator immediately.
- ♥ If you are stung, seek medical attention immediately if you have difficulty breathing or other adverse reactions.

## OD Poisoning

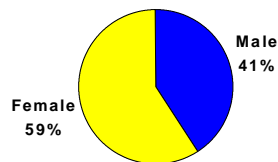
Poisonings account for approximately 11% of all injury deaths. However, the majority of these are intentional, usually suicides. Overdoses of recreational drugs are considered unintentional poisonings and make up the majority of unintentional deaths in the 15-19 year age group. In San Diego County there were not sufficient deaths due to unintentional poisoning to calculate comparison rates. The rate of unintentional poisoning death among 15-19 year olds in California exceeded the national rate (1.49/100,000 compared to 1.31/100,000).



### Paramedic/EMT-1 Patients

There were 727 children under the age of 20 seen by Paramedics and EMT-1s in San Diego County. The majority (59%) were female.

### OD Poisoning Patients Under the Age of 20 by Gender

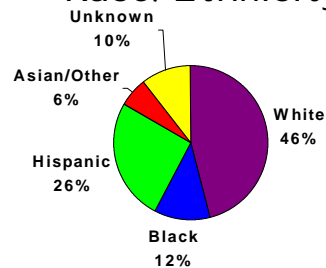


(N=727)

*\*Graph does not include 11 patients with an unspecified gender.  
Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98*

Whites accounted for 46% of OD poisoning patients under the age of 20. This is followed by Hispanic children (26%) and Black children (12%), while Asian/Other were only 6% of patients. Race/Ethnicity was unknown in 10% of patients.

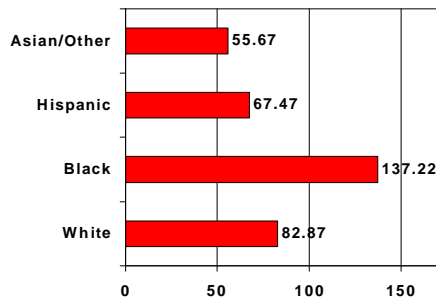
### OD Poisoning Patients Under the Age of 20 by Race/Ethnicity



(N=727)

*Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98*

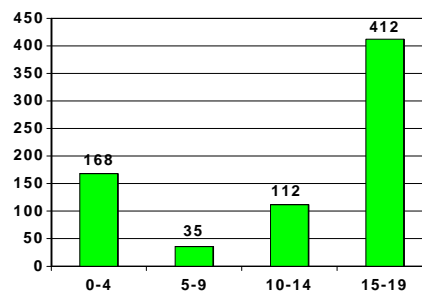
### Rates of OD Poisoning Patients Under the Age of 20 by Race/Ethnicity



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

Black children had the highest rate of OD/poisoning at 137.22/100,000. This rate was significantly higher than the rates of Whites (82.87/100,000), Hispanics (67.47/100,000), and Asian/Others (55.67/100,000).

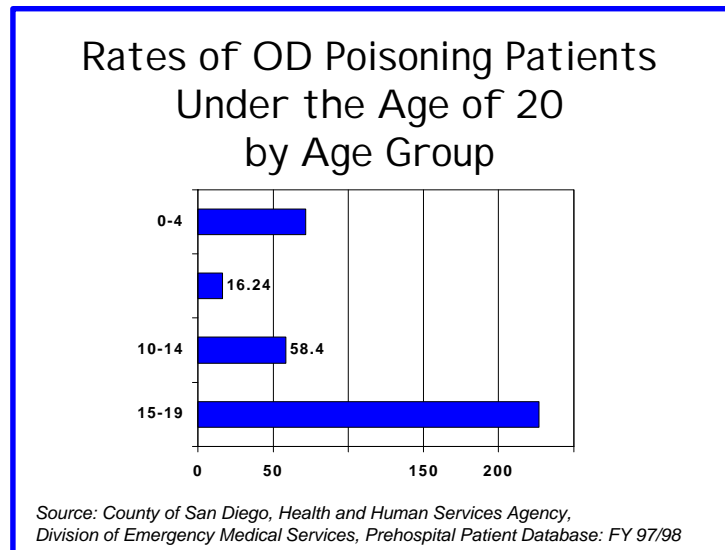
### OD Poisoning Patients Under the Age of 20 by Age Group



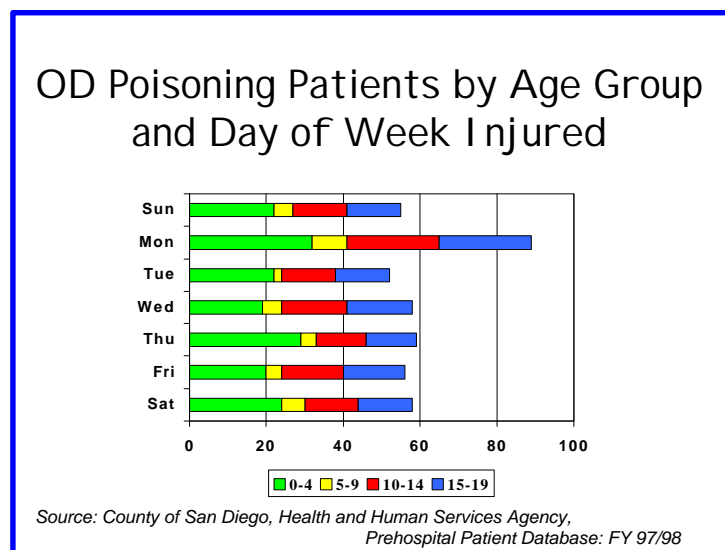
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

The age group 15-19 accounted for 57% of OD/poisoning patients. The next highest percentage occurred in the age group of 0-4 years at 23%. Children between the ages of 10-14 accounted for 15% of patients, and the lowest percentage occurred in the age group 5-9 years (5%).

The 15-19 year age group also had the highest rate of OD/poisoning at 226.81/100,000. The youngest children ages 0-4 had the next highest rate at 71.70/100,000, followed by 10-14 year olds at 58.40/100,000. The 5-9 year olds had a significantly lower rate of OD/poisoning at 16.24/100,000.

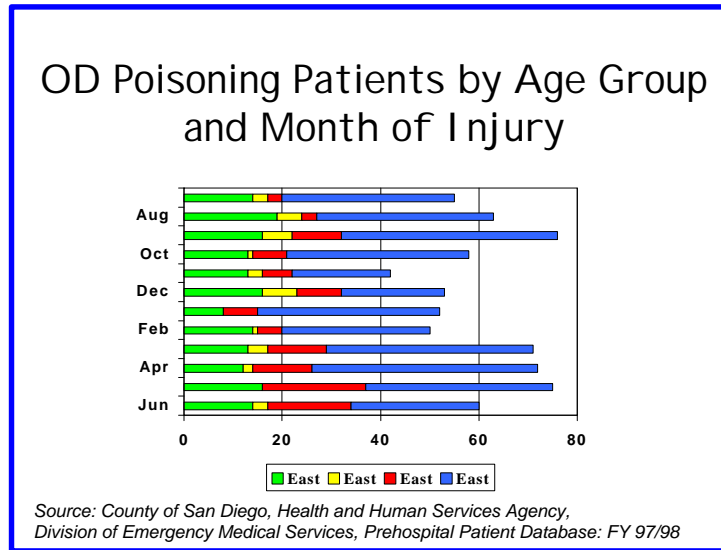


Children under the age of 20 were more likely to be injured on Mondays. Among the 15-19 year olds, the number of OD/poisoning injuries almost doubled on Mondays.

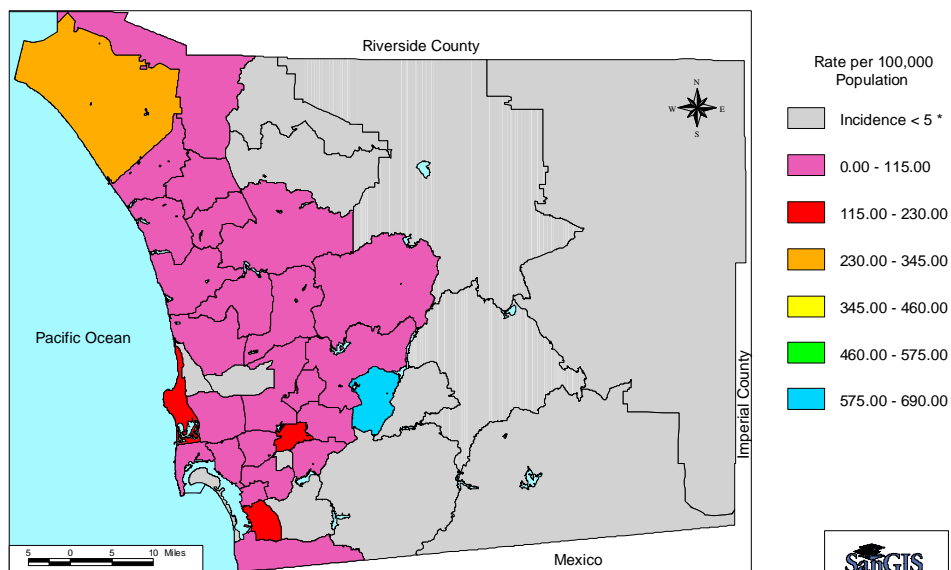


The highest number of OD/poisoning incidents for all age groups occurred in September and May. Among the 15-19 year olds there was no significant seasonal variation except in

OD/poisonings occurred in August than any other month.



Paramedic/EMT OD Poisoning Patients  
Under the Age of 20 by Sub-Regional Area





## Local Statistics from San Diego Poison Control 1999

	Number	Percentage
<b>Total Human Exposures:</b>	24,075	100.0%
Total Exposures in Children < 5 years of age:	10,306	42.8%
Total Exposures in Children 6-12 years:	1,437	6.0%
Total Exposures in Children 13-19 years:	1,601	6.7%
Total Exposures in Adults:	10,731	44.6%

<b>Site of Exposure:</b>	Number	Percentage
Own Residence:	22,630	94.0%
Other residence:	361	1.5%
Workplace:	482	2.0%
Health Care Facility:	25	0.1%
School:	241	1.0%
Restaurant/Food Service:	120	0.5%
Others:	216	0.9%

<b>Site Where Exposure Was Managed:</b>	Number	Percentage	Number	Percentage
Non- Health Care Facility:	18,778	78.0%		
Health Care Facility:	4,815	20.0%		
Treated and Released			2,668	55.4%
Admitted to Critical Care Unit			486	10.1%
Admitted to Non-Critical Care Unit			246	5.1%
Admitted to Psych Unit			279	5.8%
Lost to Follow-up			770	16.0%
Other/Refused/Unknown:	482	2.0%		

<b>Outcome of Exposure:</b>	Number	Percentage
No Effect	8,325	34.6%
Minor Effect	12,591	52.3%
Moderate Effect	1,822	7.6%
Major Effect	154	0.6%
Death	3	0.0%
Illness determined to be unrelated to exposure	1,180	4.9%

<b>Top 10 Substances in Pediatric Exposures:</b>	Number	Percentage
Cosmetics	1134	11.0%
Household Cleaners	1135	11.0%
Plants	794	7.7%
Analgesic Medications	783	7.6%
Cough and Cold Medications	639	6.2%
Foreign Bodies	577	5.6%
Topical/Dermatologic Medications	536	5.2%
Antimicrobial Medications	402	3.9%
Vitamins	340	3.3%
Gastrointestinal Medications	320	3.1%

<b>Top 10 Substances in Adult Exposures:</b>	<b>Number</b>	<b>Percentage</b>
Bites and Envenomations	1320	12.3%
Analgesic Medications	966	9.0%
Cleaning Agents	869	8.1%
Sedative-Hypnotic Medications	762	7.1%
Food Poisoning	867	6.4%
Antidepressant Medications	547	5.1%
Insecticides/Pesticides	397	3.7%
Alcohols	386	3.6%
Miscellaneous Chemicals	365	3.4%
Hydrocarbons	311	2.9%

## **San Diego Safe Kids Coalition Prevention Activities**

The San Diego Safe Kids Coalition has been actively supporting full funding for the Poison Control System both on a national and state level. Stickers promoting the use of the California Regional Poison Control Network were distributed throughout San Diego at Health Fairs. The Safe Kids Coalition distributed over 200 bottles of syrup of ipecac with instructions to call for medical aid prior to use and the phone number for Poison Control.

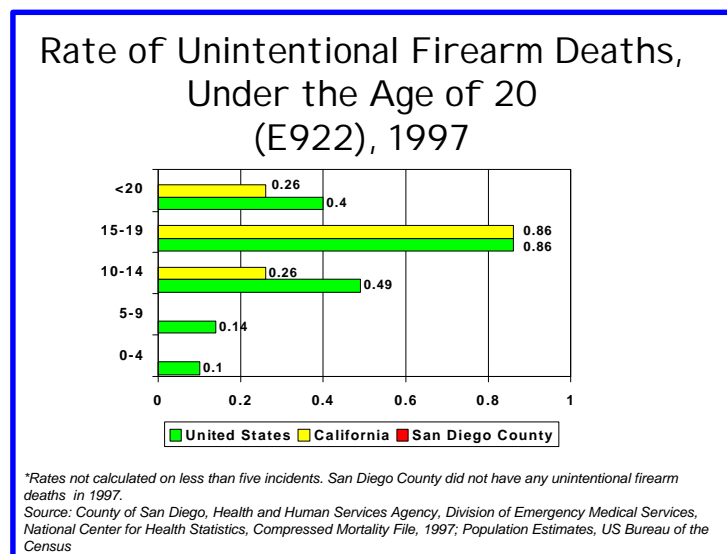
## **Prevention Activities You Can Do**

- ♥ Have the phone number for Poison Control next to your telephone.
- ♥ Keep all household cleaners, detergents, automotive products and pool/spa chemicals locked up and out of the reach of children. Install cabinet locks.
- ♥ Make sure all medications have childproof caps.
- ♥ Store products in their original containers to avoid tragic mistakes. In the wrong container, Pine Sol looks just like apple juice.
- ♥ Cosmetics may be toxic to children and should be treated with the same care as other household chemicals.
- ♥ Plants can be toxic or lethal. Know what is in your house and garden as well as other areas where your child spends time. For information concerning a specific plant, contact your local garden center, Poison Control or Agricultural Extension Service.
- ♥ Place purses and suitcases of guests out of the reach of curious children. Senior citizens frequently travel with prescription medications that can be lethal to small children.
- ♥ Make sure that places your child frequents, such as Grandma's house, practice safe storage techniques.

## Unintentional Firearm Injuries

The vast majority of firearm deaths and injuries are intentional, either due to homicide or suicide. Unintentional firearm injuries among children generally occur when children find a loaded gun in the home and either play with it themselves or show it to their friends.

In San Diego County there were not sufficient deaths due to unintentional firearm injuries to calculate comparison rates. Nationally, the rate of unintentional firearm deaths was highest among 15-19 year olds. In California the incidence of death was too low among those under age 10 to calculate a rate.



In 1997, over 14,000 handguns were legally sold in San Diego County. This was a decrease of 50% from previous years.

Several studies have shown that parents consistently underestimate their children's knowledge of where guns, ammunition and keys are stored as well as their children's curiosity about guns especially in group settings. Children who were instructed minutes before never to touch a gun but to leave the room and get an adult, were overcome by their curiosity to handle the weapon and point it at their playmates when the adult was out of sight.

## **Paramedic/EMT-1 Patients**

There were too few unintentional firearm deaths and injuries to children to present detailed information without compromising the privacy of individual patients.

## San Diego Safe Kids Coalition Prevention Activities

The San Diego City Council was working on an ordinance that would require all new guns to have some type of locking device at the point of sale. Based on a concern raised by a City Council member regarding safeguarding guns already in homes, the Safe Kids Coalition embarked on a gun safety campaign that would grow to exceed any Coalition members original expectation.

In San Diego County, we are fortunate to have a very low incident rate of injury and death due to unintentional firearm discharge. This did not deter the Coalition from heeding the conclusion of research conducted by the United States General Accounting Office that indicated that **every single injury or death to a child under the age of 6 could have been prevented if a gun lock had been in place**. Given this information and estimates that over 40 % of the homes in the United States have some type of gun, the Coalition sought funding to conduct a gun lock distribution program throughout San Diego County.

Initial funding for the program within the City of San Diego was obtained with donations from private individuals, corporations and the use of community development block grant funding. A grant for \$25,000.00 from the Alliance Healthcare Foundation allowed locks to be distributed to other areas of the county. Included in the grant from Alliance was funding to develop a gun safety/responsible gun storage brochure.

The initial distribution provided over 2,200 locks to community members. Subsequent distribution events have been held throughout the county and over 10,000 locks have been distributed to date. Lock distribution is being tracked by zip code to assess if any areas of the county are being overlooked.

The funds allocated for the production of a brochure were combined with funds from the County of San Diego to increase printing and distribution of a gun safety brochure. By combining our funds, the number of brochures printed exceeded 125,000. Additionally, the San Diego Educator's Association, reprinted and distributed the brochure to all students in the San Diego Unified School District over 140,000. Brochure distribution was published through the airing of several gun safety PSA's in the county.

The Alliance Healthcare Foundation has subsequently awarded the program an additional \$25,000.00 to translate the brochure into Spanish and allow for printing of the translated document.

This program was recognized by the National Safe Kids Campaign in 1998 as the "Most Innovative Program in the Nation". Inquiries regarding this program have come to the Coalition from all over the county and has been replicated in several locations with promising results.

Adding to the campaign concerning gun safety Coalition member Ninth District PTA was awarded a California Kid's Plate Grant to develop and conduct a gun safety educational program. The distribution of gun locks and the educational program have been linked whenever possible.

The American Academy of Pediatrics, local chapter, conducted a gun safety campaign through participating member offices. This campaign focused on the pediatrician providing gun safety information to their patients. The patient's families were identified as the result of completing a survey concerning general injury prevention questions. When the individual indicated that a gun was in the home, a gun lock and appropriate education were provided. Evaluation of this program is currently being conducted.

## **Prevention Activities You Can Do**

- ♥ Unload your guns and lock them up! Curious children can usually find objects that adults have hidden and presume to be out of their reach.
- ♥ Place gun locks/trigger locks on all guns. Keep the key with you at all times.
- ♥ Store ammunition in a locked container away from the guns.
- ♥ Ask the responsible adults whether there are any firearms in the homes your child visits and how they are stored. It is your responsibility to ask about potential hazards your child may be exposed to.

## Unintentional Cut/Pierce

There is no national or state comparison data on unintentional cutting/piercing deaths.

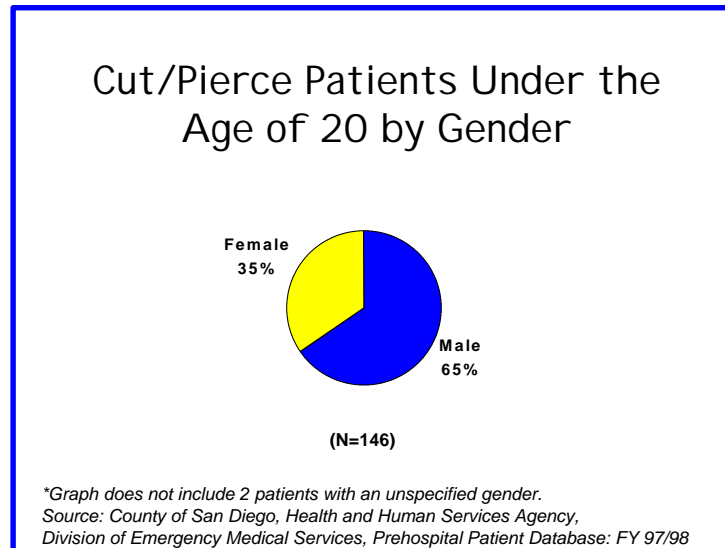
Cutting/piercing is generally associated with intention injury such as homicide or suicide.

Unintentional cutting/piercing is rarely fatal although it is a significant cause of injury among older children.

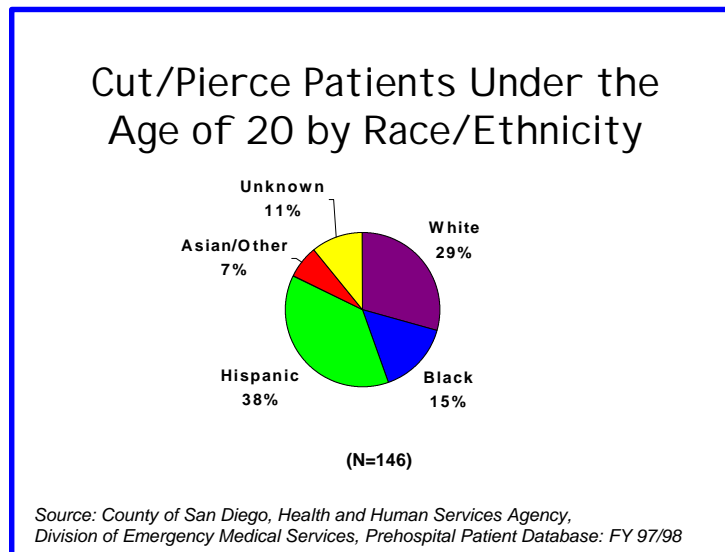
### Paramedic/EMT-1 Patients

There were 146 children under the age of 20 seen by Paramedics and EMT-1s in San Diego.

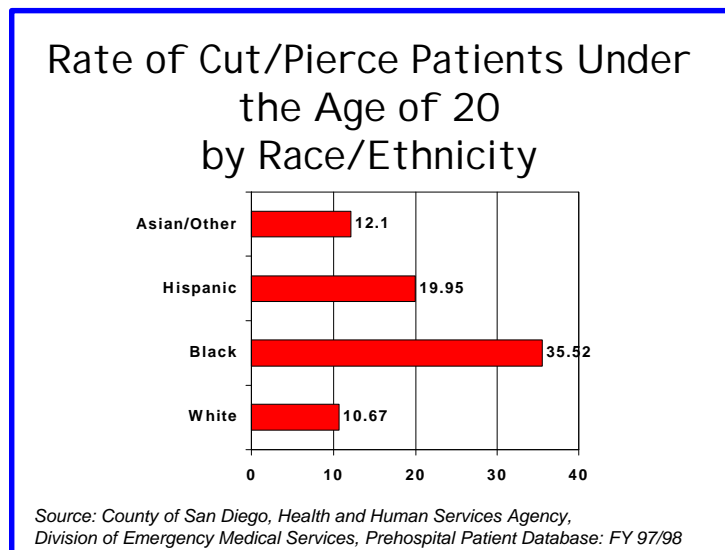
The majority (65%) were male.



The majority of unintentional cutting/piercing patients under 20 were Hispanic (38%) and White (29%). Black children accounted for 15% of patients, while Asian/Other children accounted for 7% of patients. Race/Ethnicity was unknown in 11% of patients.



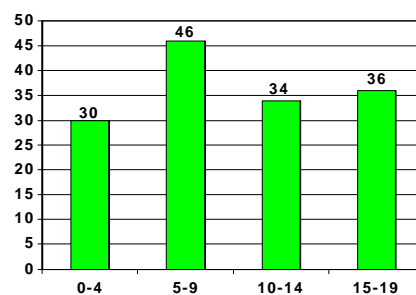
Black children under the age of 20 were at the highest risk of unintentional cutting/piercing injuries with a rate of 35.52/100,000. This was almost twice the rate of Hispanic children (19.95/100,000). Asian/Other children had a rate of 12.10/100,000 while Whites had the lowest rate at 10.67/100,000.





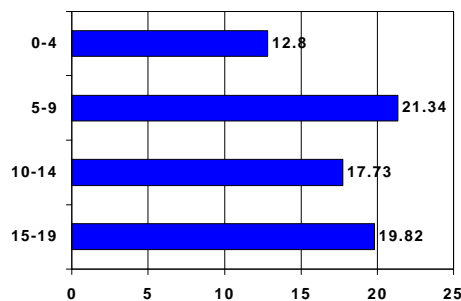
Thirty-two percent of cutting/piercing patients were between the ages of 5-9 years. This age group also had the highest rate at 21.34/100,000. Children in the age group of 15-19 accounted for 24% of patients (19.82/100,000) followed by children ages 10-14 accounting for 23% of patients (17.73/100,000). Children under 5 accounted for 21% of patients and also had the lowest rate (12.80/100,000).

### Cut/Pierce Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

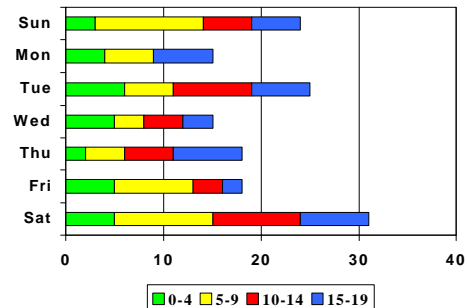
### Rate of Cut/Pierce Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

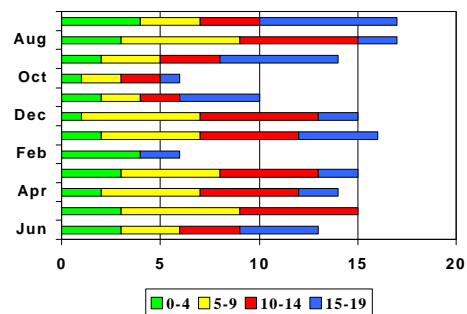
Children under the age of 20 were more likely to suffer cutting/piercing injuries on Saturdays or Tuesdays. The months that had the highest occurrence of injury for patients under 20 were July and August.

### Cut/Pierce Patients by Age Group and Day of Week Injured



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

### Cut/Pierce Patients by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

## **The San Diego Safe Kids Coalition Prevention Activities**

The Safe Kids Coalition currently does not have any activities in this injury area. It is being included as part of the overall unintentional injury picture.

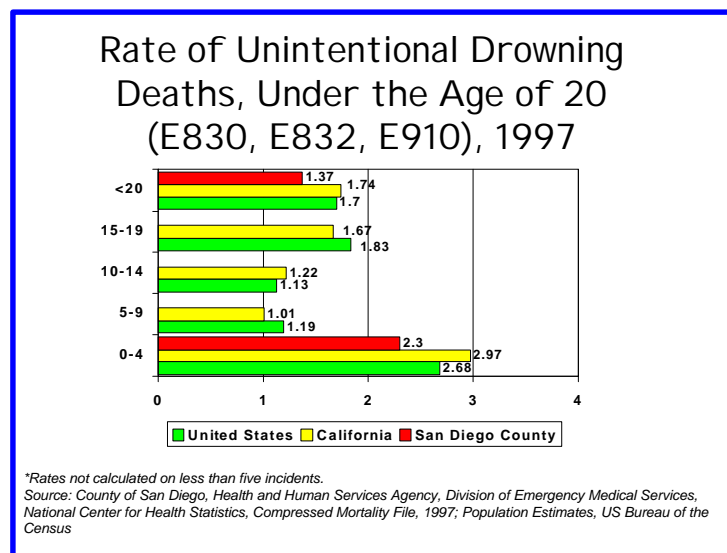
### **Prevention Activities You Can Do**

- ♥ Keep all knives and scissors out of the reach of children.
- ♥ Always supervise your children when they use tools and other sharp implements around the house.

## Drowning

Nationally, drowning is one of the leading causes of unintentional death among children under the age of twenty. Young drowning victims are much more likely to be male and of minority race or ethnicity. Children under the age of five are at greatest risk of drowning, followed by 15-19 year olds. Among the youngest victims, most drowning deaths occur in swimming pools or spas. Bathtub and bucket drowning deaths have decreased dramatically in recent years due to prevention messages aimed at parents and caregivers. A young child can drown in less than six inches of water. Older children are more likely to drown away from home in rivers, lakes and oceans for example.

In San Diego County, the rate of drowning death in the youngest age group, 0-4 year olds, is actually lower than the national or California rates. Among the older children, there were too few drowning patients to calculate rates. These low numbers contribute to San Diego County having one of the lowest drowning rates in Southern California at 1.37 deaths/per 100,000 children under age 20.



## **Sammy's Story**

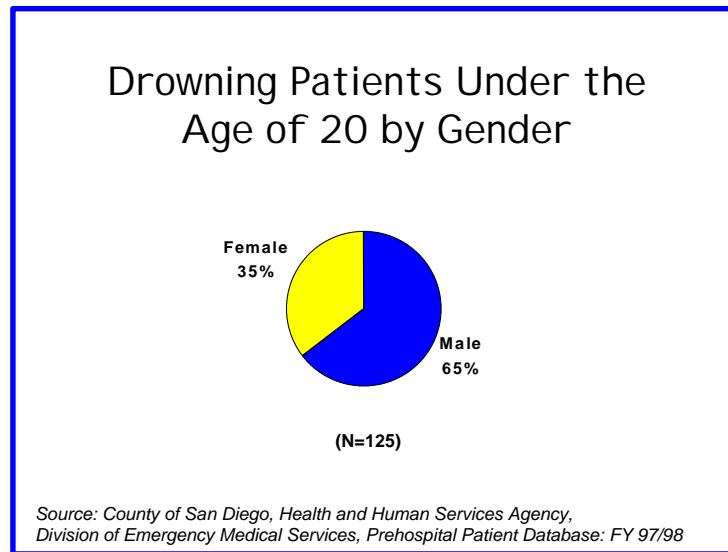
Sammy's father never thought that he would find his son unconscious and lifeless at the bottom of the family swimming pool.

It was a warm, sunny July day and three year old Sammy was home with his Dad and five month old brother riding around the house on his tricycle. The sliding glass door to the pool was open and Sammy was having fun zipping in and out of the door as his Dad fed his baby brother his bottle. All of the sudden, Sammy's Dad realized that he hadn't seen or heard Sammy for a few minutes. He let the baby finish the last couple of gulps of his bottle and then went out the door to look for Sammy. Luckily he looked in the pool first and saw Sammy and his tricycle at the bottom of the pool. His Dad immediately pulled him out of the pool. Sammy wasn't breathing so his Dad began rescue breathing. Sammy gasped and began to breathe on his own, but remained unconscious and had abnormal movements. Sammy was a very lucky boy. He only spent two days in the hospital and doesn't seem to remember that awful day. A four-sided fence, isolating the swimming pool from the house and yard could have prevented this near tragedy. Sammy's hospital bill was almost \$10,000.

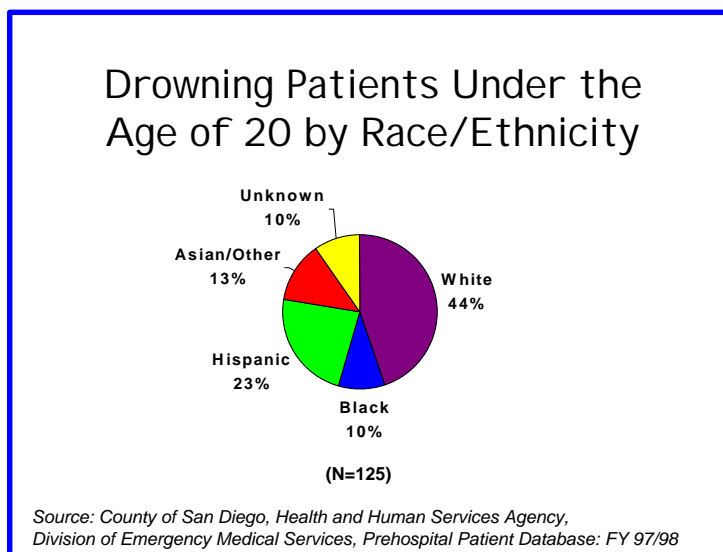
## **Paramedic/EMT-1 Patients**

In San Diego County, Paramedics and Emergency Medical Technician-1's responded to 125 drowning and near drowning patients under the age of 20 between July 1, 1997 and June 30, 1998. By definition drowning refers to events which have a fatal outcome and near drowning refers to nonfatal events. However, since the mechanism of injury and the prevention opportunities are the same, for ease of reading we will use the term drowning to refer to events with either outcome.

Two thirds (65%) of the drowning patients seen by Paramedics and EMT-1's were male.



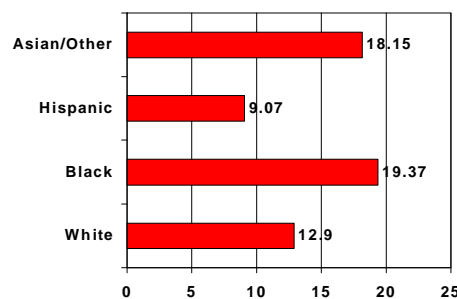
The majority of drowning patients were White (44%) or Hispanic (23%). Blacks made up 10% and Asian/Others made up 13% of drowning patients seen.



However, to fully understand the risk drowning poses to children by racial or ethnic group it is necessary to examine the rates of drowning by racial or ethnic group. A rate measures the risk of a child of a certain racial or ethnic group becoming a drowning patient based on the number of children in the group who were injured and the total number of children in that group.

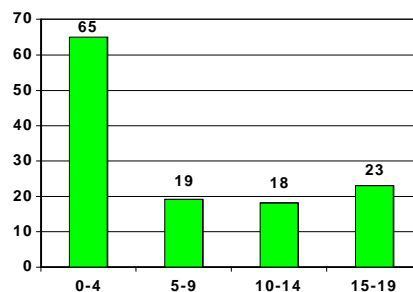
Black children had the highest risk of drowning with a rate of 19.37/100,000. Asian/Other children also had a very high risk with a rate double that of Hispanic children. So even though more White and Hispanic children became drowning patients, Black and Asian/Other children were at greater risk of becoming drowning patients.

### Rate of Drowning Patients Under the Age of 20 by Race/Ethnicity



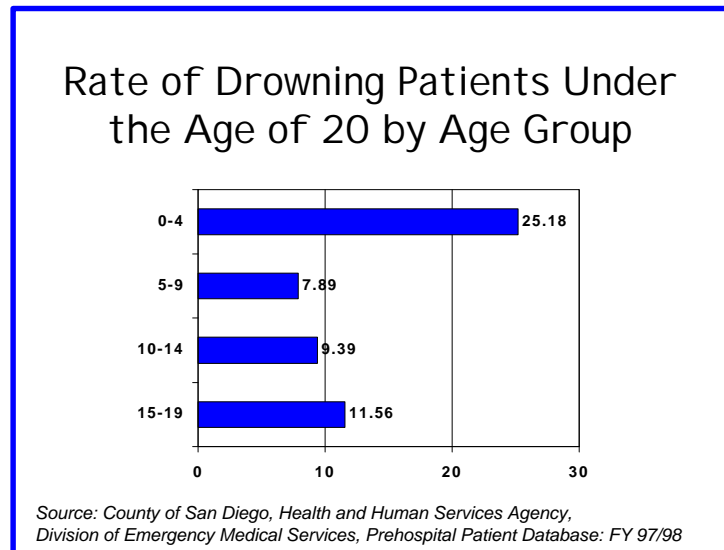
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

### Drowning Patients Under the Age of 20 by Age Group

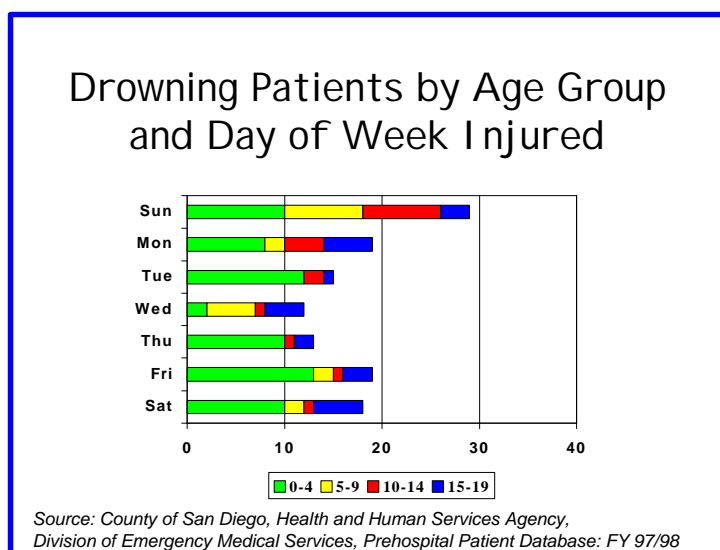


Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

Just over half of the drowning patients were under the age of five (N=65) and this group is at twice the risk of drowning as the older children with a rate of 25.18/100,000. In other words, 25 of every 100,000 children under the age of five in San Diego County became drowning patients seen by Paramedics and EMT-1's.



Considering all children under age 20, most drownings occurred on Sunday and the fewest occurred on Wednesday. However, a different pattern emerged when drownings were separated by age group. Among the youngest children, most drownings occurred on Friday and Tuesday. Among 5-9 year olds, Sunday and Wednesday were most frequent. Among 10-14 year olds, Sunday and Monday were most frequent and among 15-19 year olds more drownings occurred on Monday and Saturday.

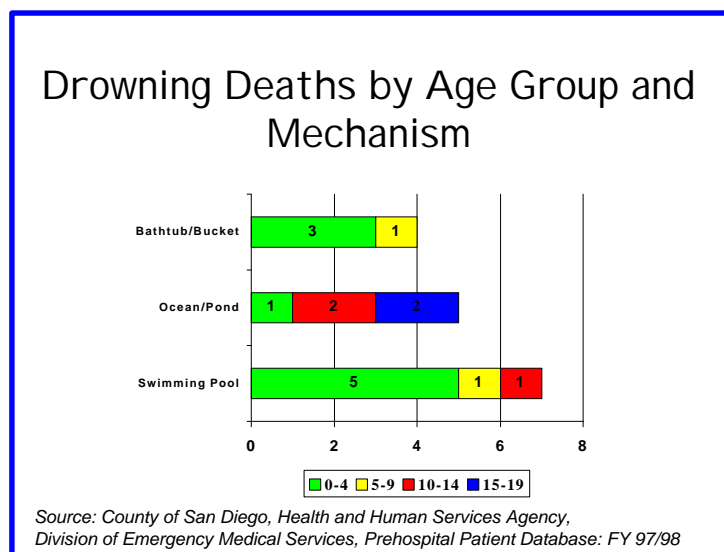




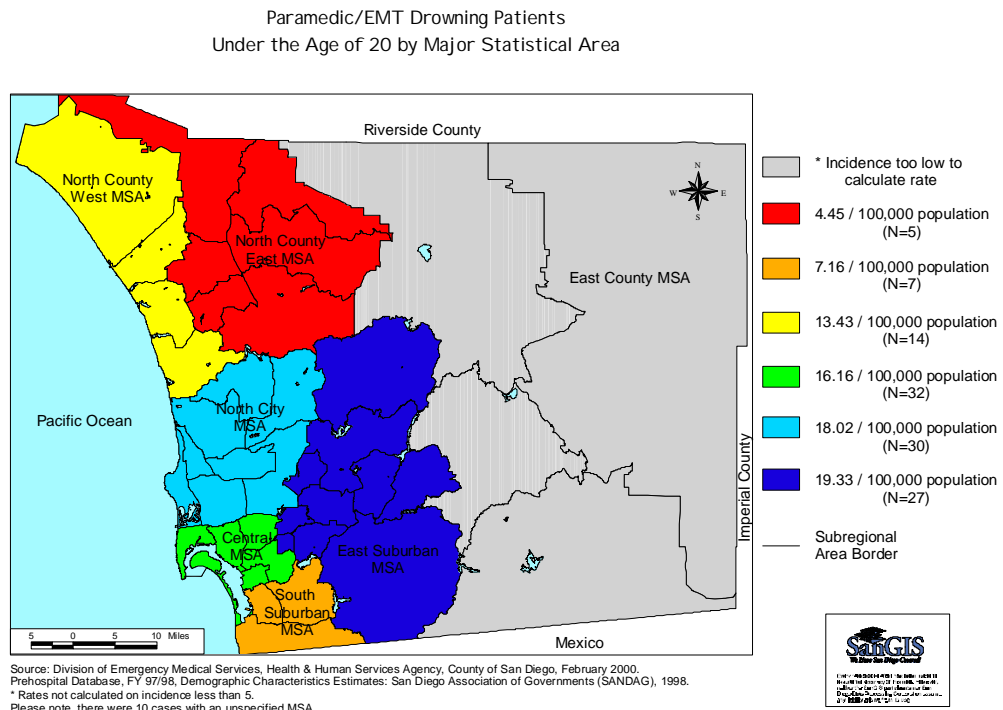
The age groups also differed by where the drowning occurred. The younger children were most likely to be injured at a home, either theirs or someone else's. The older children were more likely to be injured at a recreation or public area.

Paramedic/EMT Drowning Patients Under the Age of 20					
	0-4	5-9	10-14	15-19	Total
Home	38	7	2	1	48
Street Highway	1	0	0	0	1
Public Bldg		1	1	1	3
Rec Pblc Area	5	5	12	16	38
Med Facility	8	4		1	13
Other	12	2	3	4	21
Missing	1	0	0	0	0
<b>Total</b>	<b>65</b>	<b>19</b>	<b>18</b>	<b>23</b>	<b>124</b>
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Data, Fiscal Year 97/98.					

Of those children who died, almost all of those over age 10 drowned in the ocean or a pond. Of the younger children, most drowned in a swimming pool.



The East Suburban area of San Diego County had the highest rate of drowning patients. At 19.33/100,000, children in the East Suburban area were four times more likely to become drowning patients than children in the North County East area.



## **San Diego Safe Kids Coalition Prevention Activities**

Over the last twenty years, the rate of drowning among children has decreased substantially due in large part to efforts to make pools and spas less accessible to young children. The Safe Kids Coalition was very active in the passage of AB3305 in 1996, that required all new pools constructed in California are required by law to have one of the following safety devices in place: 1) surrounding pool enclosure 2) safety pool cover or 3) exit alarm.

While this legislation is vitally important to reduce the risk from new swimming pools, nothing is in place to retrofit existing pools with any type of safety devices. The Safe Kids Coalition has supported several measures in the legislature to provide an incentive in the form of tax credit or rebate. To date, all of these attempts have proven unsuccessful. The Safe Kids Coalition will continue to work with state legislators to bring forth this important measure in the next legislative session.

In addition to supporting legislative activities, the Coalition has conducted educational campaigns to alert parents and caregivers as to the potential drowning hazard especially with young children. With the assistance of Safe Kids Coalition member, Children's Hospital Auxiliary, hundreds of "Water Watcher Tags" have been distributed throughout the county. These tags serve as a visual reminder that one adult must take responsibility to watch the pool, not the children, for any danger. This is especially important in large gatherings with lots of children and adults where a single child could easily be overlooked.

Partnering with Safe Kids Coalition member San Diego Lifeguard Services an educational campaign was launched reminding everyone to swim in lifeguarded areas while at the beach. Additionally this campaign reminded parents the "at home- your're the lifeguard." Video copies of the PSA campaign were distributed throughout San Diego County for viewing.

## **Prevention Activities You Can Do**

- ♥ Never leave a child unsupervised, even for a minute, around water. Brain damage can occur in as little as three minutes.

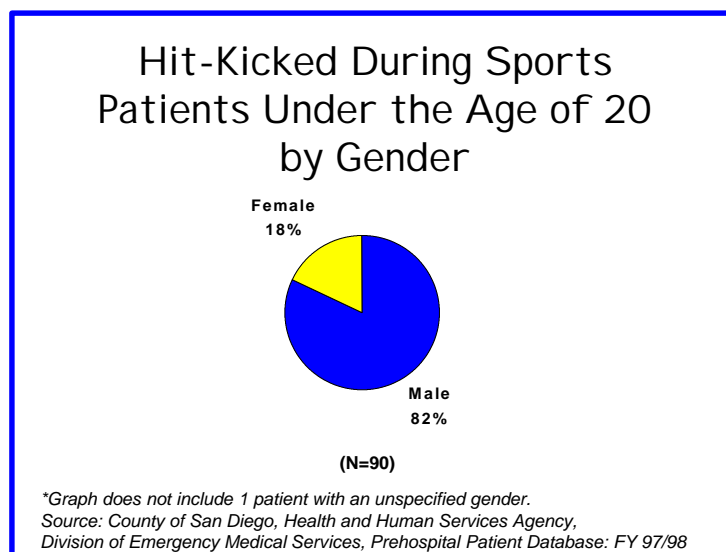
- ♥ Install a minimum 5 foot, non-climbable fence to prevent children from wandering into your pool area. Also, install a barrier fence between your house and the pool to protect your children and other child visitors.
- ♥ Keep outdoor furniture away from the fence so that it can not be used to climb on to gain access to the pool.
- ♥ Check the neighborhood to determine if any pools and spas are unfenced. Children often drown in other people's pools and spas.
- ♥ Make sure pool gates are self-locking and self-latching. Gates should be installed so that they must be pulled to open rather than pushed since toddlers instinctively push on objects to gain access.
- ♥ Keep a phone by the pool at all times.
- ♥ If your child is missing, be sure to check the pool area first and go to the edge and look down.
- ♥ Keep a phone by the pool at all times.
- ♥ Follow American Academy of Pediatrics (AAP) guidelines that children under 5 are too young to be considered "water safe" merely because they have attended "swimming lessons".
- ♥ Always supervise children in the bath. The use of such objects as Bath Rings can provide parents with a false sense of security causing them to leave the child alone. Doing so, even for a moment, has often spelled tragedy.
- ♥ Keep the door to the bathroom closed and the toilet lid down.
- ♥ Empty all buckets and containers of standing water. Toddlers can drown in as little as six inches of water in a bucket because their heads are heavier than the rest of their bodies and they can't pull themselves out.
- ♥ Teach your children to always swim in a lifeguarded area.
- ♥ Drinking alcohol and water activities don't mix. Be sure that alcohol doesn't interfere with your or your child's ability to make good choices about what is safe and what isn't. Adolescent drowning is often associated with alcohol consumption.
- ♥ Learn Pediatric CPR and take a refresher course at least every two years.

## Sports and Recreation

This category of injury includes organized team sports such as soccer, football or baseball, individual activities such as rollerblading and skateboarding, as well as falls from trees or playground equipment.

There is no national or state data available on sports and recreation injury deaths. Most of these deaths are grouped together with falls or struck by blunt object. While the deaths in the category are very few and difficult to ascertain, the number of nonfatal injuries are substantial.

### Paramedic/EMT-1 Patients



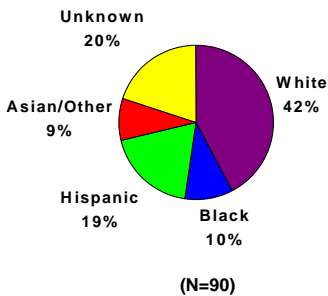
Paramedics and EMT-1's collect data on patients who were specifically hit or kicked during sports activities. Of these the overwhelming majority were male (82%).

The majority of children injured were White (42%), however race/ethnicity was not known in 20% of patients. Nineteen percent of patients were Hispanic, 10% were Black and 9% were Asian/Other.

Among those patients for which race or ethnicity was known, the highest rate or greatest risk was to Blacks with a rate double that of Hispanics and 50% greater than Whites or

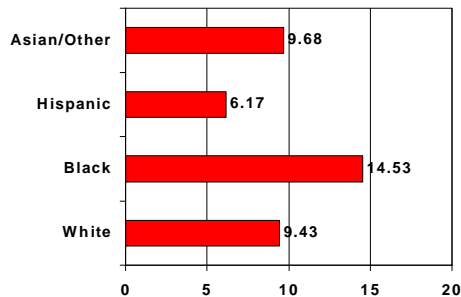
Asian/Others. Therefore Black children were at significantly greater risk of being hit or kicked during sports and injured severely enough to require emergency response by Paramedics or EMT-1's.

### Hit-Kicked During Sports Patients Under the Age of 20 by Race/Ethnicity



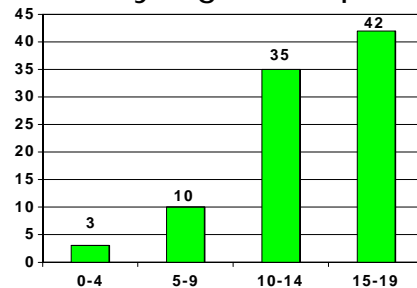
Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

### Rate of Hit-Kicked During Sports Patients Under the Age of 20 by Race/Ethnicity



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

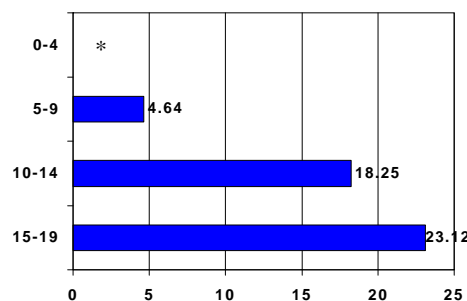
### Hit-Kicked During Sports Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

Most of these injuries occurred in 15-19 year olds (N=42) or in 10-14 year olds (N=35). In comparing rates by different age groups, the highest rate of injury per 100,000 population was also found in the 15-19 year old age group (23.12/100,000), followed by the 10-14 year old age group (18.25/100,000). Rates in these age groups were four to six times greater than in 5-9 year olds. This is because older children are more likely to play in structured, competitive team sports such as high school football where the risk of serious injury is greater than in team sports played in the early years of elementary school.

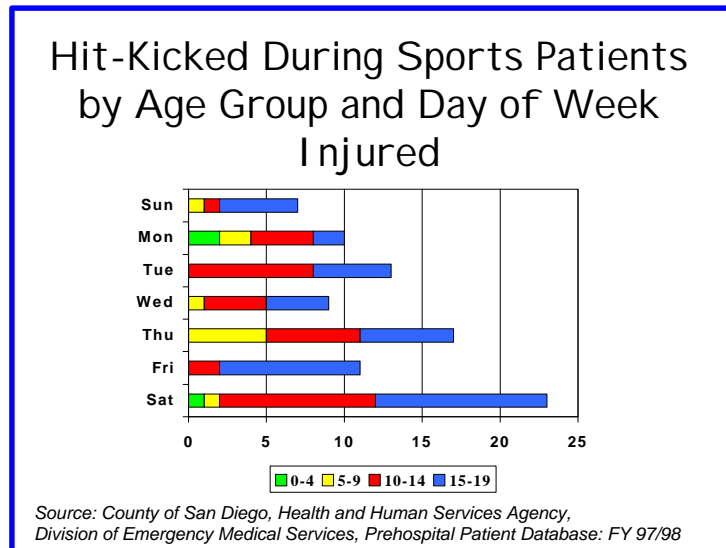
### Rate of Hit-Kicked During Sports Patients Under the Age of 20 by Age Group



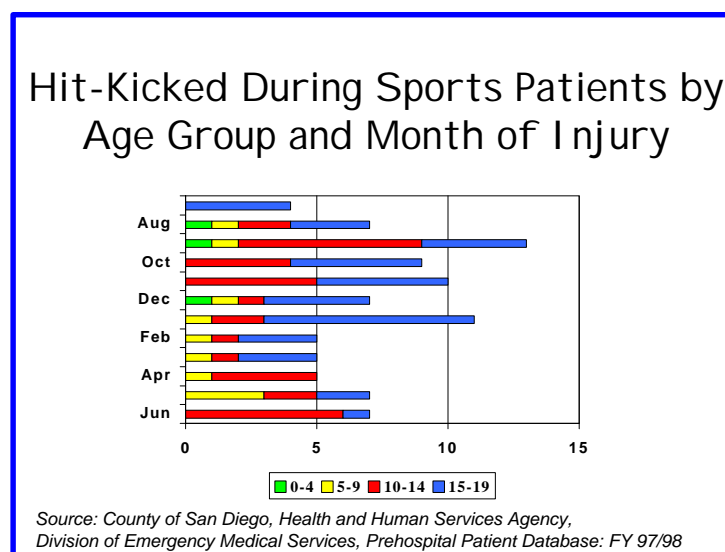
\*Rates not calculated on less than five incidents.

Source: County of San Diego, Health and Human Services Agency,  
Division of Emergency Medical Services, Prehospital Patient Database: FY 97/98

Most injuries that occurred in the 15-19 year old patients occurred on Friday or Saturday. Among the 10-14 year old patients, Tuesday and Saturday saw the greatest number of injuries and among 5-9 year olds the majority of injuries occurred on Thursday.



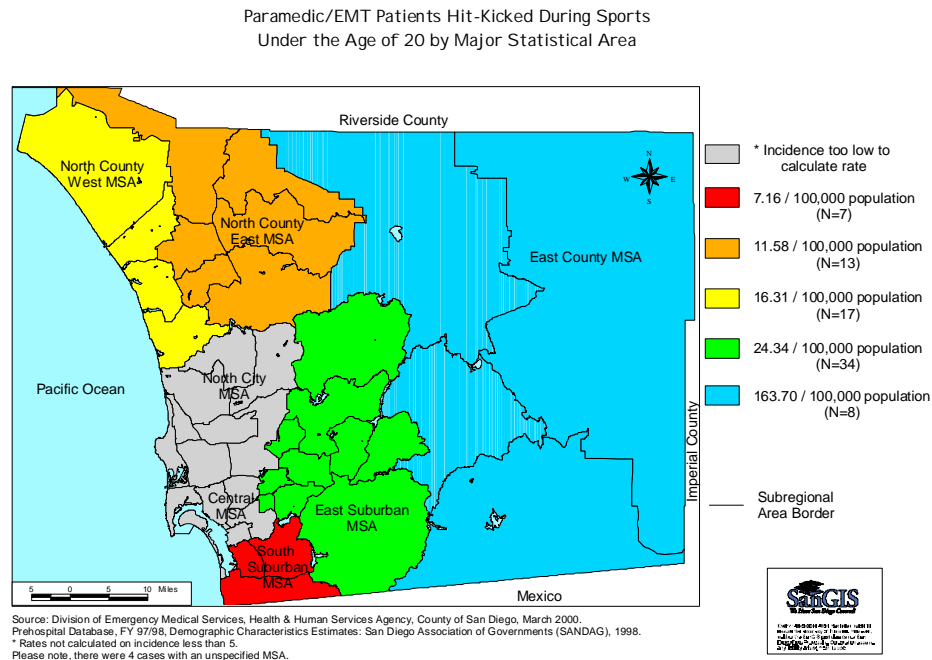
Not surprisingly, these injuries were concentrated in the Fall and early Winter months. September saw the largest number of injuries to 10-14 year olds while January saw the largest number of injuries to 15-19 year olds. There were too few injuries to the younger children to discern a clear seasonal pattern.





The majority of these injuries occurred at a public building, school or recreational or public area. The 10-14 year olds were the age group most likely to be injured at school. The 15-19 year olds were most likely to be injured at a recreational or public area or in a public building.

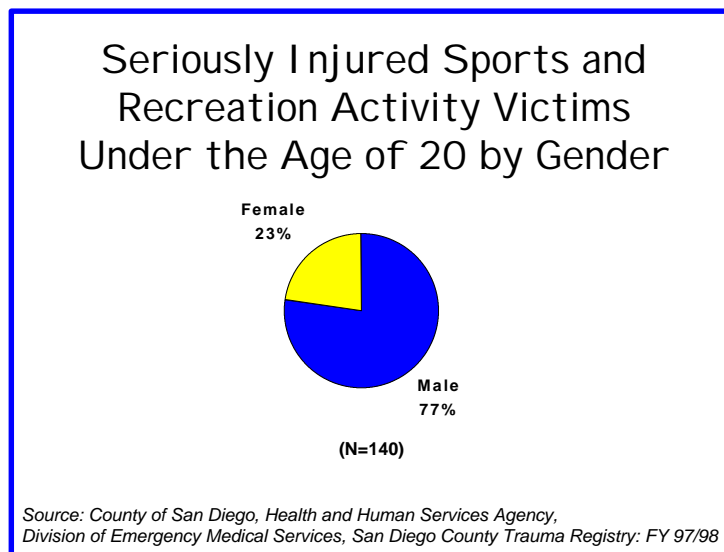
Paramedic/EMT Hit-Kick During Sports Patients Under the Age of 20					
	0-4	5-9	10-14	15-19	Total
Home	2	1	5	3	11
Street Highway	0	1	0	0	1
Public Bldg	0	1	2	12	15
School	0	2	13	6	21
Rec Pblc Area	0	3	12	16	31
Med Facility	0	0	1	1	2
Other	1	1	2	3	7
Missing	0	1	0	1	2
<b>Total</b>	<b>3</b>	<b>10</b>	<b>35</b>	<b>42</b>	<b>90</b>
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Data, Fiscal Year 97/98.					



East County had the highest rate of injury at 163.70/100,000, six times that of the next highest rate. Children in East County were at significantly higher risk of injury, however, there were only eight injuries in East County. The East Suburban area had the highest number of injuries with 34 - double that of the next highest area - and the second highest rate of injury with 24.34/100,000. Both North City and Central had too few injuries to be able to calculate rates.

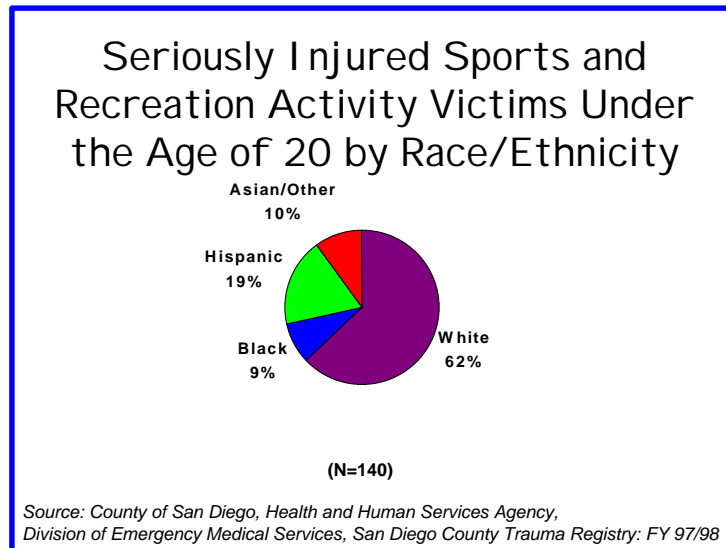
## Trauma Registry Patients

Seriously injured patients were those who met the criteria for inclusion in the San Diego County Trauma Registry and survived their injuries. Due to additional information collected by the Trauma Registry, it was possible to expand the definition of sports and recreational injuries to include not only those patients who were struck, hit or kicked during sports, but also those who fell from trees or playground equipment, were injured while swimming (excluding drowning) or were injured while riding skates/scooters.

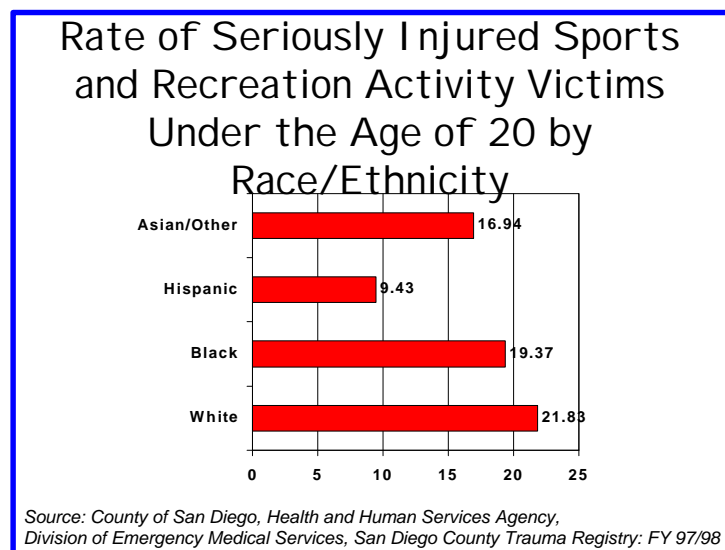


There were a total of 140 children injured in those sports and recreational activities who met the criteria for inclusion in the Trauma Registry. Only 77% of these patients were male compared to 82% seen by Paramedics or EMT-1.

A significantly higher percentage of these patients were White (62%) while the distribution of all other racial and ethnic groups remained basically the same: Hispanics 19%, Blacks 9%, and Asian/Others 10%.

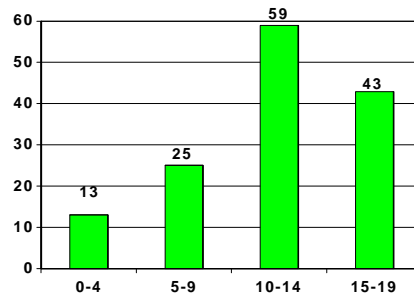


The rate for Whites was the highest at 21.83/100,000, followed closely by Blacks (19.37) and Asian/Others (16.94). The rate of seriously injured Hispanic patients remained lowest at 9.43/100,000.



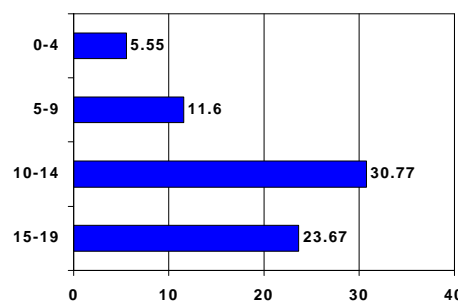
By age group the number of seriously injured 10-14 year olds (N=59) surpassed the 15-19 year olds (N=43), and also had the highest rate or risk of serious injury at 30.77/100,000. The 15-19 year olds had a risk of severe injury of 23.67/100,000. In the younger age groups both the number and the rate of severe injuries were significantly lower. There were 13 serious injuries among the 0-4 year olds for a rate of 5.55/100,000. There were 25 serious injuries among the 5-9 year olds for a rate of 11.6/100,000.

### Seriously Injured Sports and Recreation Activity Victims Under the Age of 20 by Age Group



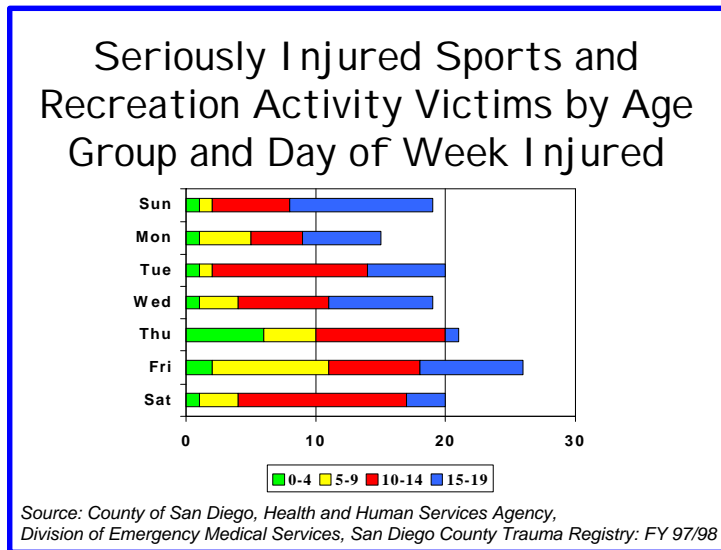
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

### Rate of Seriously Injured Sports and Recreation Activity Victims Under the Age of 20 by Age Group

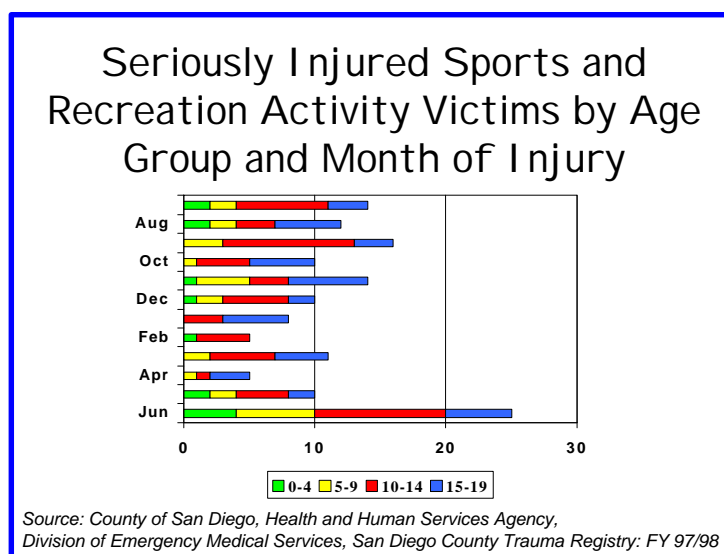


Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 97/98

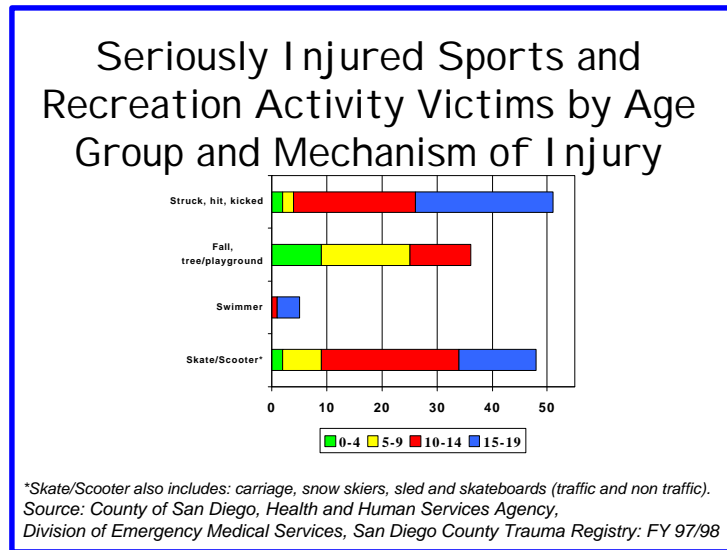
While Saturday and Tuesday continued to see the greatest number of serious injuries to 10-14 year olds, Sunday saw the greatest number of serious injuries to 15-19 year olds. Among the 5-9 year olds, more serious injuries occurred on Friday than any other day.



June had substantially more serious injuries to children under twenty than any other month due primarily to more serious injuries among 0-4 year olds and 5-9 year olds. June tied with September for the most injuries among 10-14 year olds. The Fall and early Winter months continued to have a higher proportion of serious injuries to 15-19 year olds.



Most 15-19 year olds sustained their serious injuries by being struck, hit or kicked during sports. A few also sustained serious injuries riding a skate/scooter which includes rollerblading and skateboarding. Not surprisingly, the most common mechanism of serious injury for 10-14 year olds was also skate/scooter, followed closely by struck, hit or kicked during sports. Most of the children under 10 years of age fell from trees or playground equipment with a few injured while riding a skate/scooter.



## Local EMS Research

**Background:** This study examined the data from the last seven years to determine trends of injury and death due to sports and recreation activities. This study includes the basic demographics of who is at risk including incidence and rates of injury. Demographics include: age, race/ethnicity, gender and geographic location.

**Results:** Children aged 0-4 were most likely to be injured by falling out of trees or playground equipment with a rate of 2.58 /100,000 population (N=41). Children aged 5-9 were most likely to be injured by falling out of trees or playground equipment (rate of 5.17 /100,000 population; N=72) followed by skating/roller blading/skiing (rate of 3.66 / 100,000 population; N=51) or in sports activities (rate of 2.87 / 100,000 population; N=40). Children aged 10-14 were most likely to be injured by skating/roller blading/skiing (rate of 7.82 / 100,000 population; N=96), in sports activities (rate of 7.17 / 100,000 population; N=88), or in off road vehicle activities (rate of 4.32 / 100,000 population; N=53).

The majority of sports and recreation injuries to children under the age of 15 were due to falls from trees or playground equipment. The next highest cause of injury was the skating/roller blading/skiing category. The vast majority of these children returned home after being released from the hospital. Only 14 children required care at another acute hospital or rehabilitation facility.

**Conclusions:** The data shows the incidence of sports and recreation has been increasing each year over the last seven years. There was an average of 88 victims a year (range 43 to 121). Between fiscal year 1991/92 and 1997/98 the incidence of sports and recreation injuries has increased 181%. This may be due to better reporting and increased awareness of these injuries as well as increased participation in activities such as roller blading.

Children aged 10 to 14 were at greatest risk of a severe injury due sports and recreation activities with a rate of 26.31/100,000 population (N=323). The race/ethnicity with the highest risk was White (19.58 N=415), followed by Blacks and Hispanics (11.87, N=38 and 9.39, N=128 respectively).



## **San Diego Safe Kids Coalition Prevention Activities**

The Safe Kids Coalition sponsored a sports injury prevention symposium with Coalition partner Scripps Health. This training primarily focused on head injury prevention and targeted school athletic staff and amateur coaches. Partnering in the presentation was a representative from the National Athletic Trainers Association. Also represented at the event were members of the Future Athletic Trainers Association from San Diego State University. This event served as the centerpiece for National Safe Kids Week in San Diego. The theme this year was "Get Into the Game!" and stressed the importance of incorporating injury prevention into team sports. This program will be expanded next year to reach additional coaches and parents.

Another focus area for the Safe Kids Coalition has been preventing playground injuries. The Safe Kids Coalition actively supported legislation requiring the upgrading of safety standards on public playgrounds. With the help of Safe Kids Coalition member Dennis Sulzer a certified playground safety inspector, a group of students from the Poway chapter of the National Charity League were trained on new playground safety regulations. The members were trained on how to conduct a simple playground observation using the new guidelines. The students then went into their community to compile information on the status of their playgrounds. Now that the observational surveys have been completed and a photographic record has been made regarding their observations, the students are compiling their survey results for a presentation to the City Council.

The National Safe Kids Campaign forged a partnership with the American Plastics Council to promote the use of plastics in safety devices. As an additional component of National Safe Kids Week Activities, the San Diego Safe Kids Coalition partnered with the American Plastics Council, Western Region, to replace old, unsafe playground equipment with a new, age appropriate play structure made from recycled milk containers. St. Stephen's Church School was the recipient of playground. Community partners contributed demolition, debris removal, new sand and refurbishing of existing safe play structures. The structure is being enjoyed by the over 300 + students in the school.

## **Prevention Activities You Can Do**

- ♥ Make sure your child always wears appropriate protective gear, whether they are competing or not.
- ♥ Talk with your child's coach to make sure that the activities are developmentally appropriate and injury prevention strategies are incorporated into all activities.
- ♥ Helmets, elbow pads and kneepads should be worn at all times when in-line skating, roller skating and skateboarding.
- ♥ Encourage skateboarding in controlled skateboard parks. City streets and sidewalks increase the likelihood of injuries due to irregular surfaces and other uncontrolled conditions.
- ♥ Inspect the playgrounds in your neighborhood for worn or old equipment, chipped paint and unsafe surfaces. There should be at least 12 inches of impact absorbent ground cover such as wood chips or sand OR a rubberized playground mat surface. For additional information concerning playground safety, contact the Safe Kids Coalition.
- ♥ Be sure that warm-up and stretching exercises are included in the pre-game activities.
- ♥ Wear helmets when skiing or snowboarding.

# **San Diego Safe Kids Coalition**

## **Primary Focus Areas and Goals**

### **TRANSPORTATION INJURIES**

- Goal 1: Reduce the number of children killed or injured in motor vehicle crashes.
- Goal 2: Reduce the number of pedestrian injuries and death to children.
- Goal 3: Reduce the number of bicycle-related injuries and death to children.
- Goal 4: Reduce ATV related injuries to children and adolescents.

### **DROWNING**

- Goal 5: Reduce the number of children who die or suffer injuries or disabilities from drowning incidents.

### **HOME INJURIES**

- Goal 6: Reduce the number of child injuries related to falls.
- Goal 7: Decrease the number of children (ages 0-12) poisoned each year through unintentional exposure to poison.
- Goal 8: Decrease the number of children (ages 0-5) who are injured as a result of choking and strangulation.
- Goal 9: Reduce the number of children injured by burns or scalds.
- Goal 10: Reduce the number of children unintentionally injured by guns.

### **RECREATION AND SPORTS INJURIES**

- Goal 11: Reduce the number of playground injuries sustained by children.
- Goal 12: Reduce sports-related injuries to children and adolescents.

### **DATA**

- Goal 13: Develop a comprehensive, county-wide system for collecting and sharing childhood injury data.

## San Diego Safe Kids Coalition Members

American Academy of Pediatrics  
 American Red Cross  
 American Red Cross/WIC  
 Automobile Club of So. California  
 Boy Scouts of American  
 Buckle Up San Diego  
 Burn Institute  
 California Center for  
 Childhood Injury Prevention  
 Carl Burger Dodge World  
 California Children's Services  
 California Highway Patrol  
 Casa de Amparo  
 Children's Hospital & Health Center  
 Children's Hospital Auxiliary  
 City of San Diego Lifeguards  
 Community Care Licensing  
 El Cajon Fire Department  
 El Cajon Police Department  
 ENA  
 EPI CMEDics  
 EYE  
 Farmers Insurance  
 Future Athletic Trainer's  
 Association  
 Girl Scouts  
 Kiwanis  
 La Jolla Golden Triangle Rotary  
 Lemon Grove Sheriff Department  
 MADD  
 Metro Networks  
 Midway Chrysler  
 Navy Medical Center  
 Navy Occupational Health  
 Ninth District PTA  
 Office of the Medical Examiner  
 Palomar-Pomerado Health Center  
 Pool Safe Cover Systems  
 Qualcomm, Inc

Rancho Elementary School  
 Regional Poison Control Network  
 San Diego Committee Against  
 Handgun Violence  
 San Diego County Department of  
 Environmental Health  
 San Diego County Health & Human  
 Services Agency  
     Child Health & Disability  
     Childhood Lead Poisoning  
     Household Hazardous Materials  
     Children, Youth & Families Health  
     Assessment & Planning Office  
     Division of EMS  
 San Diego County School Boards  
 Association  
 San Diego County Sheriff's Association  
 San Diego County Office of Education  
     Risk Management  
 San Diego Fire & Life Safety Services  
 San Diego Parks & Recreation Department  
 San Diego Police Department -Traffic  
 Division  
 San Diego Safe Communities 2000  
 San Diego Safe Communities  
 San Diego Safety Council  
 San Diego State Foundation WIC  
 San Miguel Consolidated Fire District  
 Scripps Encinitas Hospital  
 Scripps Mercy Hospital  
 Scripps Las Madres  
 Sharp Healthcare- Think First  
 TOYS R US  
 Trauma Research & Education Foundation  
 U.C.S.D. Burn Center  
 U.C.S.D. Woman's Center  
 U.S. Consumer Product Safety Commission  
 Vista Community Clinic  
 YMCA of San Diego County

We would like to thank all the San Diego County Paramedics/EMT-1's, Prehospital Agencies, Hospitals, Trauma Centers and Medical Examiner's Office for their data collection efforts and contribution to this research.

The San Diego County Trauma Centers are:

- Palomar Medical Center
- Scripps Mercy Hospital and Medical Center
- Scripps Memorial Hospital
- Sharp Memorial Hospital
- University of California, San Diego Medical Center
- Children's Hospital and Health Center

## The Power of One – The EPI C Medics Story

On May 8, 1996, a paramedic unit responded to a call to assist a little two year old boy named Nicholas Rosecrans who drowned after he had wandered away from a day-care center into the unfenced pool of the house next door.

The medics resuscitative efforts were successful only to the point of return of a pulse, but Nicholas was taken off life support twelve hours later and allowed to die. Nicholas' mother wrote the paramedics a letter thanking them for the time they had given her to say good-bye to her son. This was the last drowning paramedic **Paul Maxwell** ever wanted to respond to. He was determined to help end this rash of preventable pediatric drownings that was occurring in his district.

He contacted the San Diego Safe Kids Coalition as was welcomed with open arms. Coalition coordinator Roxanne Hoffman, immediately recognized the value of using both EMS data and a paramedic as a spokesperson to influence public policy and deliver the prevention messages. "Our paramedic should know....he sees it everyday", she would say to the press. Together they used EMS data, the media and many other strategies to help influence the passage of AB3305, requiring safety devices on all new pool constructed in the State of California. For his work in drowning prevention, Paul was selected as the State EMS Authority's choice to receive the 1998 "Star of Life Award" from the American Ambulance Association in Washington, D.C. Fellow paramedic **Josh Krimston** joined Paul in organizing other paramedics to utilize their experience as paramedics to turn tragedy into action. Together they founded **EPI C Medics**.

**EPI C "Eliminate Preventable Injuries of Children" Medics** is a coalition of volunteer paramedics and others, whose primary goal is to integrate Emergency Medical Services and injury prevention in a partnership with the San Diego Safe Kids Coalition, San Diego Safety Council and Buckle Up San Diego

The **EPI C Medics** mission is simple:

- Eliminate or reduce preventable childhood injuries
- Provide assistance in obtaining a health plan that guarantees medical, dental and vision benefits for every uninsured child in San Diego County.
- Influence public policy in favor of the health and safety of children in the communities that we serve

- Coalition building to mobilize other groups and individuals who share our goals.

**EPI C Medics** developed the HERO “Home Emergency Rescue Officer” program to involve kids in their own families safety. The HERO program introduces injury prevention to elementary school children, Presented on a big screen with an LCD projector, a slide show captures their attention with live action video clips of helicopters landing, riding in the cab of an ambulance driving Code 3 and more. Students are introduced to the work of a paramedic and how he or she helps people. The main focus is the 10 most common causes of childhood injuries (as identified by county EMS data) and what the kids can do to prevent them. The student's learn that there is no such thing as an “accident” and that the calls that paramedics respond to are usually preventable and predictable. They learn that it is far more heroic to prevent an injury or a loss of life than trying to save it after it's already gone. The program concludes with distribution of the HERO Home Safety Checklist and safety pledge. Upon completion of the Home Safety Checklist, students achieve HERO status and are awarded a certificate.

In addition to the HERO Program, EPI C Medics also are trained to assist in signing up families for participation in the Healthy Families Insurance Program. All reimbursement funds that the EPI C Medic receive for their participation in this program are used for purchasing outreach materials and distribution of safety equipment for children (bicycle helmets, car seats, etc.

Several EPI C Medics are currently undergoing training to become Child Passenger Safety Technicians in classes sponsored by the San Diego Safe Kids Coalition. Three EPI C Medics became certified technicians in November, 1999. They are frequent volunteers at check up events and regularly distribute educational information concerning correct child safety seat use at all of their events. EPI C Medics also have been trained to be the assessors in the *HOME SAFE HOME* program sponsored by the San Diego Safety Council. They continue to refine the home safety checklist incorporating information from runs in the field.

At the bottom of EPI C Medics web site is a statement that gets at the heart of the EPI C Medics motivation. It simply states, “We can’t do everything, but we can all do something.” Judging by what they have been able to accomplish in

such a short amount of time, they have already done quite a bit and are sure to do much more.

For more information regarding the EPI C Medics program visit their website at [www.epicmedics.org](http://www.epicmedics.org) or call (619) 501-EPI C.

Remember, this all started because of the actions of an individual, an individual not unlike yourself. What story are you going to write?